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THE MORE IMPORTANT RECORDS FOR JUNE, 1932

Over part of the Great Plains area where grasshoppers were destructive last year, wet weather has occasioned some disease among grasshoppers and materially advanced crops and other vegetation to such an extent that damage will undoubtedly be less severe than last year. In the northern part of this area, however, the weather has been hot and dry and serious damage is anticipated where control measures have not been possible.

The Mormon cricket appeared in outbreak numbers in southern Idaho.

The pale western cutworm is doing considerable damage in western North Dakota and scattered localities throughout Montana.

Armyworm infestations are quite generally distributed over Iowa, southeastern Nebraska, and eastern Kansas.

The Hessian fly and the chinch bug situations have not materially changed since last month.

Sod webworms are reported as quite generally prevalent from the southern Middle Atlantic States westward to Nebraska.

The rose chafer is reported in destructive abundance throughout New England, New York, Michigan, northern Indiana, and Nebraska.

There was no material increase in abundance of the more important apple and peach insects.

A European leaf curling apple midge (Dasyneura mali Kieff.) is recorded from Massachusetts. This appears to be the first American record.

A cherry sawfly leaf miner (Profenus collaris MacG.) is recorded for the first time from the State of Michigan.

The vegetable weevil is recorded from 9 previously unrecorded counties in Alabama and 1 county in Texas. This does not materially advance the general distribution of this pest.

The larvae of a weevil (Phytonomus rumicis L.) was found in destructive numbers on commercially grown sorrel in Connecticut. This European pest was first recorded in this country in Iowa in 1917.

The Colorado potato beetle appears to be abnormally abundant over the greater part of the Eastern States this year.

The Mexican bean beetle increased rapidly during the month and was reported in destructive numbers throughout the greater part of its range. This insect was found for the first time in Illinois this month.

The pea aphid is making decided inroads on the cannery pea crop in Ohio, Michigan, and Wisconsin.

The pink boll worm has been discovered this spring in Florida at Miami and extending south to Key West. The infested region is some 400 miles from commercial cotton plantings.

The European pine shoot moth is now in flight in New England and is appearing in increasingly destructive numbers in that region and in New York State.

A Japanese weevil (Pseudocneorrhinnus setosus Roelofs) which was first recorded in New Haven, Conn., in 1920, is this year proving to be somewhat of a pest of privet and barberry.

#### THE MORE IMPORTANT ENTOMOLOGICAL FEATURES IN CANADA, FOR JUNE, 1932.

The grasshopper situation is serious in the Prairie Provinces, particularly in southern and central Manitoba, where the worst outbreak in more than fifty years is reported over a wide territory. Widespread areas are also affected in south and central Saskatchewan, but although the outbreak is severe it is less intense than in Manitoba. The situation in Alberta is much better than was anticipated, a general heavy downpour of rain early in May having caused a high mortality of the young nymphs. The species involved throughout the affected territory are the lesser migratory, two-striped, and clear-winged grasshoppers.

Over a large part of Saskatchewan and Alberta, the pale western cutworm is again in severe outbreak form, and is causing very serious crop losses. The outbreak is considerably more extensive than in 1931. The army cutworm also has increased materially in the Prairie Provinces, outbreaks having occurred in many localities in southern Alberta and southwestern Saskatchewan, where important crop damage, usually mixed with pale western cutworm damage, was effected. Army cutworm moths were present in great numbers and have attracted much attention, not only in Alberta and Saskatchewan, but also in southern Manitoba, where the species is not a pest. Another species, the red-backed cutworm, is occurring over a wide territory in the Prairie Provinces, but severe damage has been done only in localized areas, notably in Manitoba.

Wireworms caused severe damage to wheat in western Saskatchewan, and to sugar beets, locally, in southern Alberta, this spring. Moisture conditions were favourable to wireworms in the affected areas.

Moths of the beet webworm have been extremely abundant in Alberta, Saskatchewan, and Manitoba, and very heavy and widespread outbreaks of the larvae are indicated. Weeds such as lamb's quarters and Russian thistle are chiefly subject to attack, but the species is also a pest in gardens.

A large flight of June beetles (Phyllophaga anxia Lec.) occurred in eastern Ontario, in late May and June, over an area of possibly 1,500 square miles. Heavy damage to crops by the resultant grubs is considered probable in 1933.

Outbreaks of flea beetles, notably the potato flea beetle, are reported from southern Ontario affecting potato, tobacco, and other plants.

Adults of the oriental fruit moth commenced emerging much later than in 1931 in the Niagara district, Ontario. The first-brood infestation is lighter than it has been in any spring since the species became of economic importance as a peach pest in southern Ontario.

A serious outbreak of grape leafhoppers developed in the Niagara fruit district in Ontario.

The balsam bark louse, Dreyfusia piceae Ratz., continues to spread slowly in southern New Brunswick and now extends up the St. John River Valley a distance of a little more than 50 miles from the coast. This insect occurs throughout Nova Scotia, where it is one of the most important forest insect pests.

Heavy infestations of the western willow leaf beetle occurred over wide areas in Saskatchewan and Alberta, resulting in severe defoliation of poplar and willow in the affected territory.

In sections of southern Manitoba, several species of deciduous trees have been completely or partially defoliated by the fall canker worm. The outbreak of this insect in New Brunswick, which was moderate in 1931, has intensified somewhat, and much defoliation of elm and basswood has occurred.

The larch case bearer continues in outbreak form over a large part of eastern Canada and in many sections severely defoliated larch.

Ticks are reported as unusually abundant in wooded areas in parts of Manitoba and Alberta, and sections of British Columbia. Several species are involved. In addition to attacking wild and domestic livestock, cases were reported, from Vancouver Island and coastal districts of British Columbia, of ticks attaching themselves to humans.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Rhode Island      A. E. Stene (June 23): A report came in today from one of the islands in the Bay stating that grasshoppers were eating heavily.

Georgia      O. I. Snapp (June 16): Grasshoppers are more abundant than usual around Fort Valley, damaging corn and other crops. It has been necessary to use poisoned-bran bait in some cornfields.

South Carolina      A. Lutken (June 24): A farmer in Pickens County reported millions of grasshoppers destroying cotton. Upon examination about a dozen colonies of several hundred each were found. Several hundred cotton plants had been destroyed. The grasshoppers were very small and the species was not determined.

Indiana      J. J. Davis (June 27): <sup>reports of</sup> No serious outbreaks have been received, although <sup>grasshoppers</sup> were reported abundant at Jasonville June 14.

Kentucky      W. A. Price (June 25): Grasshoppers, mostly small nymphs, are moderately abundant in the bluegrass.

Michigan      R. H. Pettit (June 22): Grasshoppers are very abundant. The species involved are Melanoplus mexicanus Sauss., Cannula pellicula Scudd., and M. femoratus Burm.

Wisconsin      C. L. Fluke (June 24): Grasshoppers are very abundant.

Minnesota      A. G. Ruggles (June 27): Grasshoppers are very abundant; 46 counties being helped.

North Dakota      J. A. Munro (June 18): Grasshoppers are a serious menace to crops in many counties. The northeastern section of the State is hardest hit. The insects are still wingless. There will be tremendous loss of crops. (June 23): Fungus has caused almost complete destruction of grasshoppers in two small areas in Cass County--at Tower City, and near Fargo. Yesterday near Fargo what was an exceedingly heavy infestation of hoppers showed nothing but the dead bodies of the insects clinging to the tops of weeds and small grains. Fully 95 per cent were killed. The report regarding the other area stated that about the same percentage had died. Poisoned bait had not been spread at either place. Apparently all the hoppers have completed hatching. About 5 per cent of the earliest hatches have become winged.

F. D. Butcher (June 13): More than 90 per cent of the nymphs of M. bivittatus Say are out now and nearly as many of C. pellicula, though they are a bit later than the former. Have

found a few scattering pods of M. differentialis Thos. and of either M. femur-rubrum DeG. or M. mexicanus in which no hatching has occurred, but these species are scarce. (June 20): Adult of C. pellucida and first adult of M. bivittatus.

Iowa

C. J. Drake (June 22): The infestation is very heavy in western Iowa. Although numerous and extremely heavy rains have destroyed many young hoppers, the population in some fields runs as high as 50 to 500 per square yard. In one small field of oats in Pottawattamie County, A. D. Worthington, Extension Entomologist, and the County Agent, estimated the population to average around 2,000 per square yard. The first adults of the 2-striped grasshopper were observed in barley fields near Sioux City, June 21. A few adults of M. mexicanus have been observed in Story, Harrison, and Pottawattamie Counties. M. differentialis is the most common and abundant species, but hatching is not complete. The number of first-instar nymphs of this species is increasing every day in the field. Poisoned-bran mash is being scattered by many farmers in western and central Iowa. Several species of blister beetles are just beginning to appear in large numbers in Iowa.

Missouri

L. Haseman (June 20): Grasshoppers are very abundant in some districts but June rains are favoring crops.

Nebraska

M. H. Swenk (June 1 to 20): During the month the grasshopper situation has developed principally along three lines: (1) the continued hatching of eggs, (2) a great reduction in the grasshopper population of the northern and northeastern heavily infested counties by heavy rains and floods, and (3) an increase in the grasshopper population in parts of western and especially southwestern Nebraska. By June 1 eggs of the two-striped grasshopper had largely hatched on the upland south slopes, but those on the north slopes, and those in the lower ground, the latter chiefly of the differential grasshopper, were only about 60 per cent hatched. Hatching has continued through June to date, and at present probably not more than 10 to 15 per cent of the eggs of both species together, on the average, remain unhatched. The largest number of unhatched eggs is to be found in the western counties. Heavy beating rains during the nights of May 24 and 25 over much of the heavily infested northeastern area were mentioned as destroying a part of the hatch of the two-striped grasshopper. Similar rains over this area on June 1, and on several dates subsequently, have reduced the grasshopper population in this badly threatened district very materially, perhaps 50 per cent. But in parts of this area still, and over a large section of western Nebraska where little rain has fallen during May and June to date, grasshoppers remain menacingly abundant locally and threaten serious crop damage.

Kansas

H. R. Bryson (June 24): Apparently grasshoppers are more numerous in the vicinity of Manhattan this season than last

season. Judging from the number of requests for information regarding the formula for mixing the poisoned bran mash, grasshoppers are quite numerous in a number of localities. Reports from Hepler, Mapleton, Byers, Silver Lake, and Oneida indicate that grasshoppers are a menace in those localities.

Alabama

J. M. Robinson (June 30): Grasshoppers are very abundant in Ashland.

Mississippi

C. Lyle (June 23): More than the usual number of complaints have been received recently. Specimens did not accompany these complaints. Cotton, soy beans, flower gardens, etc., were reported attacked.

Idaho

C. Wakeland (June 24): Grasshoppers are quite numerous in Bingham and Cassia Counties and are being fought by the use of poisoned bran mash. They are also reported from Elmore County as becoming numerous enough to warrant poisoning operations.

Nevada

G. G. Schweis (June 21): Grasshoppers are very abundant in western Nevada. Vigorous control program is in progress.

Oklahoma

C. F. Stiles (June 21): Grasshoppers are very numerous along creek banks, fence rows, and in pasture lands in practically all of southwestern and south-central Oklahoma. A number of species are present, but perhaps the most numerous are M. femur-rubrum, and M. differentialis.

Nevada

Agric. News Service, University of Nevada, Agric. Ext. Div. (June 13): Large kills of grasshoppers have been reported by farmers in various parts of Lyon County.

Wyoming

A. G. Stephens (June 24): Grasshoppers are moderately abundant in northeastern and central Wyoming.

Utah

G. F. Knowlton (June 10): Grasshoppers are becoming very abundant and seriously damaging in the Ouray Valley, and are causing some damage in the Bennett, Wilson, and south Ashley Valley sections of the Uintah Basin. The grasshopper situation continues to become more serious in parts of Millard County. (June 20): Reports just received indicate that grasshoppers are becoming dangerously abundant in parts of Salt Lake County, and at Kanarrville, in Iron County. They are also abundant in parts of Sanpete, Sevier, Millard, and Tooele Counties.

California

E. O. Essig (June 8, 10): Abundant in upland meadows in the Sierra foothills near Eldorado.

Canada

Daily Digest, Press Service, Office of Information, U.S.D.A., (June 24): A Winnipeg dispatch today states that a swarm of grasshoppers so thick that they delayed a passenger train was reported from southwestern Manitoba yesterday.

MORMON CRICKET (Anabrus simplex Hald.)

Idaho

C. Wakeland (June 24): Crickets were first discovered this year when they were found making their way to agricultural land on irrigation water out of the Fort Hall Canal. Traced to their source it was found that they were migrating from range land on the east side of the canal in very large numbers. Steps were immediately taken by the residents of that section and canal barriers erected and trenches dug. For three weeks volunteers turned out in large numbers constructing hand-dug trenches, estimated to be at least 40 miles in length. On the bottoms of these trenches pits were dug for trapping the crickets. As long as soil was moist trenches proved to be almost entirely effective but when the soil surface dried in some of the soil types they could crawl up the sides freely and escape. In the fight that has been waged there have been literally hundreds of thousands, possibly millions, of crickets killed, yet there are countless hordes remaining. No great damage has been done to cultivated crops, primarily, I believe, because of the cool, moist weather conditions and the abundance of succulent vegetation on their native range. The first adults were found on June 14. We have found large bands of crickets in Bingham County on the Indian Reservation, in Bonneville County in the dry-farming area, and in Fremont County. Two more outbreaks were reported in Elmore and Ada Counties.

FIELD CRICKET (Gryllus assimilis Fab.)

North Dakota

J. A. Munro (June 18): Newly hatched nymphs of the common black field cricket were noticed at Fargo during the first week of June. Their abundance at this time indicates that they will prove a troublesome pest this season.

CUTWORMS (Noctuidae)

Wisconsin

E. L. Chambers and assistants (June): Cutworms were reported as seriously damaging a wide variety of crops early in June. The main center of infestation was in a band extending from Marinette and Door Counties southwestward to Crawford County, with another area across the northwestern part of the State.

North Dakota

J. A. Munro (May 31): Just had a telephone call from the County Extension Agent at Williston stating that cutworms had completely destroyed a 70-acre field of wheat near Williston, Williams County. From his description I judged that they were the pale western cutworm (Porosagrotis orthogonia Morr.). The County Extension Agent at McKenzie County also reports the prevalence of this species. (June 18): Many reports of serious injury by the pale western cutworm have been received from Mountrail, Williams, McKenzie, and other western counties. Few reports of cutworm injury have been received from the eastern part of the State.

South Dakota H. C. Severin (June 13): Cutworm damage has been more severe than usual in South Dakota this spring. Damage is letting up some at present writing.

Iowa C. J. Drake (June 22): The variegated cutworm (Lycophotia margaritosa Haw.) is extremely abundant in alfalfa fields and doing a considerable amount of damage throughout a large portion of Iowa.

Kansas H. R. Bryson (May 27): Report from Great Bend states that the larvae of Nomophila noctuella D. & S. destroyed the new growth of grass on 4 or 5 acres of native prairie sod.

Nebraska M. H. Swenk (June 1 to 20): Along with the armyworm Cirphis unipuncta Haw. in the alfalfa fields, during the second week in June, were considerable numbers of the variegated cutworm (L. margaritosa saucia Hbn.) in Lancaster, Johnson, and Pawnee Counties, but apparently not extensively elsewhere in the State. In some fields the second cutting of hay was eaten back quite severely in these three counties.

Tennessee G. M. Bentley (June 22): Black cutworms (Agrotis ipsilon Rott.) are moderately abundant.

Montana A. L. Strand (June 21): The pale western cutworm, P. orthogonia, occurred in outbreak numbers in scattered localities throughout the State. In Valley County approximately 16,000 acres of grain, mostly wheat, was destroyed.

CALIFORNIA TORTOISE SHELL (Aglais californica Bd.)

California E. O. Essig (June 13): The caterpillars have defoliated several hundred acres of Ceanothus, which is a good cattle feed, in the Sierras, chiefly at from 3,000 to 6,000 feet altitude, although the butterflies are now found plentiful and some caterpillars are evident as high as 8,000 feet. The butterflies occur in thousands in some areas along the American River.

WHITE-LINED SPHINX (Sphinx lineata Fab.)

West Virginia L. M. Peairs (June 25): S. lineata has been abundant in Morgantown, and has been so as far west as Wheeling, since about the first of June.

California F. H. Wymore (June 22): The adults have been very common near Davis since about April 20 to the present time. One full-grown caterpillar was taken at Laurel Beach, Lake County, on June 6 and four were received from Del Loma on June 12.

WHITE GRUBS (Phyllophaga spp.)

Virginia

C. R. Willey (June 25): White grubs are very abundant near Richmond, Henrico County, and in adjoining counties; heavy infestations in Loudoun County.

Illinois

W. P. Flint (June 15): Very heavy June beetle flight reported from McHenry and Carroll Counties continued into June. Defoliation of oak trees practically complete in areas affected.

Michigan

R. Hutson (June 11): June beetles are very numerous in Battle Creek, Clinton, Howell, Kalamazoo, Monroe, Saginaw, and Sault Ste. Marie.

Wisconsin

E. L. Chambers and assistants (June): Severe defoliation by adults and rather large infestations of larvae were reported from 11 counties in the southern and western parts of the State.

C. L. Fluke (June 24): White grubs are very abundant. Adults are very numerous in southwestern Wisconsin; they are now laying eggs.

Iowa

C. J. Drake (June 22): June beetles, Brood A, are appearing in large numbers in eastern and southern Iowa, and in many instances trees are being defoliated. At Hampton a number of trees were dusted by means of an airplane. A nursery man living near the grove reports that many beetles have been killed. During the past few years white grubs have caused heavy losses in western and southern Iowa, particularly in Decatur and Wayne Counties. Brood B destroyed about 75 per cent of an oat field near Marshalltown. The grubs stopped feeding and migrated down deeper into the ground to form pupal cells about three weeks earlier than Brood A did last spring.

Nebraska

M. H. Swenk (June 1 to 20): White grubs are moderately abundant and injurious in strawberry beds during the period here covered, in an area from Douglas and Cass Counties west to Hamilton County.

A WIREWORM (Heteroderes laurentii Guer.)

Alabama

K. L. Cockerham (June 15): Reports by farmers and produce men of Bay Minette indicate that February and March planted corn and spring-planted snap beans were very seriously damaged. The species causing this damage wasn't known, but it is presumed that it is H. laurentii since that seems to be the predominating species of that section. On the above date young larvae of this species were observed feeding on late-planted corn at Foley. The larvae were so small, however, that they will likely not affect the stand or do any considerable damage. Measurements of larvae collected indicated that

they were 3 to 4 weeks old. The presence of these larvae indicates that egg-laying in the field has occurred early this season, although we have not yet obtained eggs from isolated females in the laboratory.

Kansas

H. R. Bryson (June 24): Wireworms Acolus amabilis Lec., (Dra-sterius elegans) reported injuring newly planted corn and sorghums at Eureka.

JAPANESE BEETLE (Poivillia japonica Newm.)

Pennsylvania  
and  
New Jersey

C. H. Hadley and assistants, U. S. D. A. Japanese Beetle Lab. (April): Population surveys during the month of April indicate a marked increase in nearly all of the older infested area in southeastern Pennsylvania, as also locally in the corresponding section of New Jersey. Most localities in the latter State, however, show a decrease as regards infestations of more than a few years duration.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

Maine

C. R. Phipps (June 25): This insect was noted in great numbers in Cumberland County feeding upon apples, raspberry foliage, and rose bushes on June 21. Light sandy soil provided ideal breeding ground.

New Hampshire

J. G. Conklin (June 23): The rose chafer is present in very great numbers through the State. Several poultrymen have reported loss of young chicks because of this pest.

Connecticut

C. M. Chapman (June 15): Eight or ten people have shown me very serious damage being done by chafers on a wide number of plants and shrubs in Danbury.

Rhode Island

A. E. Stene (June 23): Rose bugs are unusually prevalent in some places. Even greenhouse men have had trouble from rose bugs defoliating geraniums.

Massachusetts

A. I. Bourne (June 24): Rose chafers have been more abundant throughout the State than for many years. In addition to their injury to foliage there have been many instances where the beetle has gouged deep scars into the young developing fruit of both apple and peach.

New York

P. M. Eastman (June 26): Reports of injury are continually being brought to our attention. Letters and specimens are received nearly every day from persons living in an area from the Canadian line to New York City.

New York State Coll. of Agr., Weekly News Letter (June): About the middle of the month the rose chafer became excessively numerous throughout the State and was reported in unprece-

dented numbers in Ulster and Dutchess Counties. (Abstract, J.A.H.)

Michigan

R. H. Pettit (June 17): Rose chafers are just appearing. They are in large numbers and are doing great damage.

Indiana

J. J. Davis (June 27): The rose beetle has been very abundant in the northern part of the State damaging all kinds of garden plants; and they were responsible for killing many chickens and young ducks.

Nebraska

M. H. Swenk (June 20): Hundreds of young chickens were reported killed by eating rose chafer beetles in Lincoln County during the first week in June.

#### C E R E A L A N D F O R A G E - C R O P I N S E C T S

##### WHEAT

###### HESSIAN FLY (*Phytophaga destructor* Say)

Ohio

T. H. Parks (June): In southern and central counties the infestation has increased over last year. Not much damage has been done to the wheat as the infested straws are not broken over though some fields average between 30 and 40 per cent of the straws infested. The annual wheat insect survey is now in progress.

Indiana

J. J. Davis (June 27): Hessian fly is quite general over the State with some sections, notably the southwest corner, with very heavy infestations. Early in June frequent reports were received from central Indiana of noticeable fallen wheat.

Illinois

J. H. Bigger (June 17): The Hessian fly is very abundant over western Illinois. Many fields of wheat are not worth cutting because of damage. It is easy to see fallen straws while driving by the fields. Some fields are already plowed under.

S. C. Chandler (June): Infestation in most fields examined in southern Illinois is heavy.

Nebraska

M. H. Swenk (June 1): The Hessian fly is very abundant in a large area in southeastern Nebraska. The infestation has expanded somewhat and been greatly intensified during the past six weeks. There are two distinct areas of serious infesta-

tion--an eastern area and a western area. Altogether 20 Nebraska counties are involved, either wholly or in part, in the areas of serious infestation. (June 20): The only new development in the infestation since my report of June 13 is that the western area of infestation has been found to extend from northwestern Buffalo County into eastern Dawson County and southwestern Custer County. The infestation is light over this area, a typical field near Callaway, Custer County, showing only 27 per cent of the stems infested with an average of slightly less than 1 puparium per stem.

Missouri

L. Haseman (June 20): Hessian fly surveys show heavy infestation and much lodging of wheat.

WHEAT STRAW WORM (Harmolita grandis Riley)

Utah

G. F. Knowlton (June 15): Some winged adults have now matured in northern Utah. Infestations have ranged from 0 to 30 per cent, with most samples showing less than 10 per cent.

CHINCH BUG (Blissus leucopterus Say)

Connecticut

W. E. Britton (June 23): Occasionally there are complaints of dead brown patches in lawns at Hartford where there are a great many individuals.

South Carolina

A. Lutken (June 24): Chinch bugs moving out of grain fields have caused severe damage to small cornfields in localized areas.

Iowa

C. J. Drake (June 22): The chinch bug is extremely abundant in Lee and Des Moines Counties. In a few instances the bugs have started to migrate from small grain into cornfields.

Missouri

L. Haseman (June 22): In central Missouri migration from wheat to corn began June 9 and in most fields the migration is now about over. Bugs are less abundant than expected.

Nebraska

M. H. Swenk (June 20): Chinch bugs are moderately abundant.

Kansas

H. R. Bryson (June 24): Chinch bugs are very abundant in south-central Kansas. They are causing considerable injury to rowed crops in south-central and southeastern Kansas. Injury has been reported from Cambridge. The population at Manhattan is much greater than at any time since 1927. They moved from plots of thin wheat at the college agronomy farm in sufficient numbers to cause considerable injury to adjoining corn plots.

Oklahoma

C. F. Stile (June 21): Chinch bugs are quite numerous in central and northern Oklahoma and doing considerable damage to corn and grain sorghum.

Mississippi

R. B. Deen (June 21): A heavy infestation of chinch bugs in a 10-acre field of corn at Greenwood on June 20. Severe damage was noticed.

BLACK STINK BUG (Cosmopepla bimaculata Thom.)

Kentucky

W. A. Price (June 25): C. bimaculata was seen by the thousands marching from barley fields in Fayette County.

CORN

ARMYWORM (Cirrhis univittata Haw.)

Maine

C. R. Rippis (June 25): Moths are being taken in much greater numbers than during the past two summers.

Iowa

C. J. Drake (June 13): Western Iowa is heavily infested. These pests are doing considerable damage in a number of fields of small grain. The infestation seems to extend from Mills County to north of Sioux City, spreading eastward. Infestation is pretty general over western Iowa. (June 22): Thousands of acres of rye, wheat, barley, and oats have been totally destroyed. In a 900-acre field of wheat in Harrison County the farmer scattered poisoned bran mash by means of an airplane. In a number of instances armyworms have migrated from small grain to adjoining fields of corn. In Woodbury County the county agent estimated that the worms destroyed a field or two of small grain on 500 different farms. The worms are just beginning to appear in the central portion of the State. Along the Missouri River most of the worms have pupated.

Nebraska

M. H. Swenk (June 20): As a result of the unusual abundance of moths flying in southeastern Nebraska during the third and fourth weeks in May, there was a severe outbreak of this pest that started June 7 and is now largely, but not completely, over. According to our data, the most severe trouble was experienced in the southeastern part of the State, with outbreaks--also in Dakota, Boone, and Greeley Counties.

Kansas

H. R. Bryson (June 24): The true army worm has been causing injury to wheat at Manhattan. Injury consisted in defoliation and cutting the beards. Similar injury was reported from Lincoln.

CORN EAR WORM (Heliothis obsoleta Fab.)

South Carolina

A. Lutken (June 24): The corn ear worm is, in general, very abundant. At Calhoun Falls June 1 the first larvae moved out of a field of crimson clover and destroyed about 14 acres of young cotton. A similar outbreak was reported from York; and

at Walhalla some damage occurred when larvae left the vetch cover crop in an apple orchard and destroyed some of the small apples.

Georgia

O. I. Snapp (June 8): The corn ear worm is causing much damage to tomatoes in gardens in Fort Valley.

C. H. Alden (June 21): This insect is very abundant at Cornelia.

Florida

J. R. Watson (June 24): Very abundant over the State in practically every ear as usual.

Ohio

T. H. Parks (June 18): A moth was caught at a trap light exposed at a height of 450 feet on the top of a building in Columbus.

Kentucky

W. A. Price (June 25): The corn ear worm is moderately abundant on tomatoes.

Mississippi

C. Lyle and assistants (June): This insect was reported as quite generally abundant throughout the State. In one case at Corinth 90 per cent of the vetch seed was destroyed in one patch. The insect is also reported as attacking its usual food plants in other parts of the State. (Abstract, J.A.H.)

California

R. E. Campbell (May 28): Sweet corn in tassel in southern Los Angeles County is quite generally infested. Worms of all sizes are feeding in the tassel.

F. H. Wymore (June 22): Eggs were observed for the first time this season at Davis on June 13 by O. H. Lovell.

#### SOD WEBWORMS (Crambus spp.)

Vermont

H. L. Bailey (June 25): C. luteolellus Clem. was abundant in some cornfields near Montpelier, cutting off and mutilating young corn plants.

Maryland

E. N. Cory and staff (June 23): Reports from western Maryland, Baltimore County, and Eastern Shore, of sod webworms attacking corn.

West Virginia

L. M. Peairs (May 24): Sod webworms have been reported from the Northern Panhandle, Wheeling, Sisterville, and other localities as injurious to corn. (May 26): Additional reports of the insect have been coming in to such an extent that we may say we have the worst infestation on record in northern West Virginia. (June 14): I continue to receive information of the abundance of webworms in sod land, on strawberries, and even attacking tobacco.

North Carolina      C. H. Brannon (June 20): Sod webworm damage to corn is reported widespread in the mountains.

Ohio      T. H. Parks (June 3): Sod webworms have been quite destructive the past two weeks to young sweet and field corn in southeastern Ohio. It was necessary to replant in a few cases. Less than the usual injury was present in other parts of the State.

Indiana      J. J. Davis (June 27): Webworms reported damaging golf greens at Franklin and Greencastle June 16 and 17 respectively.

Kentucky      W. A. Price (May 26): Sod webworms have caused considerable damage to corn in Fayette and Bourbon Counties.

Nebraska      M. H. Swenk (April 20 to June 1): In Antelope County during the third week in May a field of corn was being badly injured.

**LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)**

Georgia      O. I. Snapp (May 28): The lesser corn stalk borer is unusually abundant. A crop of sweet corn at Washington has been ruined.

**BEET ARMYWORM (Laphyza exigua Hbn.)**

California      R. E. Campbell (May 28): Larvae are attacking young corn up to the time it is a foot high in Los Angeles County. Actual damage is slight, as the corn outgrows it.

**SUGARCANE BEETLE (Euetheola ruficeps Lec.)**

Virginia      H. G. Walker (June 27): What appears to be the rough-headed corn stalk beetle has been reported as being very injurious to corn in the Newport News area.

Illinois      G. T. French (May 24): Specimens seriously damaging corn were collected at Pointcenter, Louisa County.

Kentucky      S. C. Chandler (June): This beetle has damaged 15 to 20 per cent of the hills in some cornfields in Jackson, Williamson, and Saline Counties. Beetles are disappearing from fields.

Tennessee      W. A. Price (June 25): The sugarcane beetle was received from Lexington, Russellville, and Cane Valley. The adults were feeding on young corn plants.

Tennessee      G. M. Bentley (June 22): Sugarcane beetles are moderately abundant in corn throughout the State.

Alabama

J. M. Robinson (June 20): The sugarcane beetle is very abundant on corn in Auburn, on cane in Vincent and Trafford, and on corn in Montgomery, Ashland, and Heflin.

Mississippi

C. Lyle (June 23): Young corn plants injured were received from Gloster on May 29 and from Michigan City on June 22.

Vermont

H. L. Bailey (June 25): Billbugs were found unusually abundant in a large cornfield at North Hartland, June 2. The corn plants were badly damaged. Also reported from Chester.

North Dakota

J. A. Munro (June 18): On June 8 a specimen of the clay-colored billbug (C. aequalis Gyll.) was received from Lidgerwood. In the letter accompanying the specimen was the statement, "I found this insect with a half Nelson on a chick's beak. It had him groggy...." On June 14 a specimen was received from Cooperstown, with a letter stating that the beetle was clamped on a chick's beak and would have strangled the chick if the beetle had not been removed. These are the first reports of injury to chicks received by this office since the summer of 1926. (June 20): I just received a letter from New Salem, accompanied by several specimens of the clay-colored billbug. "These insects were found attached to the throat of some chickens. I understand that some farmers lost a few chickens. You can hardly pull them loose after they are attached."

Nebraska

M. H. Swenk (April 20 to June 1): A Richardson County farmer reported during the third week in May that for the second successive year corn billbugs (C. parvulus Gyll. and C. melanoccephalus Fab.) had injured his field of young corn.

#### GRAPE COLASPIIS (Colaspis brunnea Fab.)

Indiana

J. J. Davis (June 27): The clover white grub (C. brunnea) destroyed half of a 30-acre field of corn near Williamsport.

#### CORN FLEA BEETLE (Chaetocnema pulicaria Melsh.)

Maryland

E. N. Cory (June 23): C. pulicaria is very abundant on corn in western Maryland.

Kentucky

W. A. Price (May 26): Flea beetles were reported on corn at Paris, Lexington, and Winchester. (June 25): Flea beetles have been abundant on corn at Lexington, Owingsville, and Louisville. They continue to be prevalent on tobacco over the State generally.

#### A FLEA BEETLE (Systema taeniata Say)

Ohio

T. H. Parks (June 22): A field of corn near Grove City, Franklin County, was destroyed by S. blanda this month. Other spe-

cies of flea beetles were bad on corn during May but most of the fields rapidly outgrew the injury.

Indiana

J. J. Davis (June 27): The pale striped flea beetle (S. tae-niata blanda Melsh.) was reported damaging tomato at Kokomo June 13 and to crops not reported at Albion June 21.

**SEED CORN BEETLE (Agonoderus pallipes Fab.)**

Nebraska

M. H. Swenk (April 20 to June 1): Cornfields around Stockville were reported heavily infested with seedcorn beetles, which abounded in the loose soil and destroyed the young plants.

**CORN ROOT APHID (Anuraphis maidi-radicis Forbes)**

Virginia

C. R. Willey (June 25): Much damage was reported in at least 90 per cent of a cornfield growing along the James River.

Indiana

J. J. Davis (June 27): The corn root aphid is abundant and destructive to sweet corn at Mt. Vernon.

Illinois

J. H. Bigger (June 17): The corn root aphid is much more numerous than normally. In examining 4,400 hills of corn on experimental fields 406 were found infested with aphids.

**ALFALFA**

**ALFALFA WEEVIL (Hypera postica Gyll.)**

Idaho

C. Wakeland (June 24): Alfalfa weevil is very abundant in the alfalfa fields of the Upper Snake River Valley, and injury is likely to be the most severe that we have experienced since 1923 or 1924.

Nevada

G. G. Schweis (June 21): Damage was severe in some valleys in western Nevada while in other localities the weevils were remarkably few.

Utah

G. F. Knowlton (June 20): Doing damage in the Uintah Basin areas. The county agent reports serious alfalfa weevil damage in many parts of Sevier County.

W. H. Larrimer (June 3): On May 12 R. A. Blanchard found a single specimen in San Joaquin Valley near Tracy. Subsequent scouting revealed a general infestation of probably several years and extending through several counties.

California

A. E. Michelbacher (June 20): Near Pleasanton the weevil can be found in moderate abundance in certain fields. Scarce at Niles.

LESSER CLOVER LEAF WEEVIL (Phytonomus nigrostris Fab.)

Illinois J. H. Bigger (June 17): Counts in western Illinois, May 25 to 28, indicate from 7 to 8 per cent loss of the first hay crop and 25 per cent loss of the first seed crop.

SMARTWEED FLEA BEETLE (Systema hudsonias Forst.)

Virginia C. R. Willey (June 1): "We had 5 acres of Korean Lespedeza--a lovely stand--now nearly 2 acres are gone." This is the first time we have had a complaint of an insect damaging Lespedeza.

PEA APHID (Illinoia pisi Kalt.)

Kentucky W. A. Price (May 26): Aphids are so numerous on alfalfa at Lexington that one's shoes become spotted with honeydew.

North Dakota J. A. Munro (June 18): Large fields of sweet clover in Cass County have been practically ruined by the pea aphid ~~this season.~~ This is the first time that aphid injury to sweet clover in North Dakota has been noticed. Farmers are plowing under the infested fields. Recent reports indicate that the infestation is more widely distributed. I had a report that a large number of fields in Traill County are badly damaged by the pest.

Iowa C. J. Drake (June 22): Extremely abundant throughout the State, especially in alfalfa fields. In the small pea-growing district it has been doing considerable damage.

Oregon L. P. Rockwood (June 4): Aphids decreased slowly in May. The reduction was due principally to the work of syrphid larvae. Aphids were from 20 to 25 per cent alates May 23. Aphids increased after May 15 on these crops much more rapidly on the peas than on the vetch. Vetch and peas are now too far along to be appreciably injured.

GRASS

THRIPS (Thysanoptera)

Missouri L. Haseman (June 20): The so-called oat bug or oat thrips (Ananchothrips obscurus Mull.) has been very abundant in the air in central Missouri for the past week, June 16-23.

Nebraska M. H. Swenk (June 1 to 20): In Douglas County bluegrass grown for seed was heavily and injuriously infested with nymphal thrips of the species A. obscurus and Thrips tabaci Lind. during the second week in June.

F R U I T I N S E C T S

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

Delaware

L. A. Stearns (June 23): Emergence of spring-brood moths ended June 14; 90 per cent had emerged between May 14 and 28; first brood injury to date 50 per cent lighter than in 1931.

New York

N. Y. State Coll. Agr., Weekly News Letter (June): The first moth was observed in the Hudson River Valley during the last week in May. The first eggs were observed in the field on June 3; and by June 13 eggs were present in considerable numbers in western New York. Young larvae were observed entering fruit on June 17 in the western part of the State and on June 11 in the lower Hudson River Valley. (Abstract, J.A.H.)

Virginia

C. R. Willey (June 25): Moths are very abundant at Richmond, Henrico County, and in adjoining counties.

Georgia

C. H. Alden (June 21): The codling moth is moderately abundant at Cornelia. First-brood worms are now entering fruit.

Ohio

T. H. Parks (June 26): In central and northern counties the emergence of the overwintering brood was heaviest during the first week of June but has been long drawn out and is still continuing. At Ironton, southern Ohio, larvae were leaving the apples June 13 and spinning under the bands.

Illinois

W. P. Flint (June 15): First pupation of the first brood was observed in Jackson County on June 8.

J. H. Bigger (June 17): Very abundant at Jacksonville. Heavy emergence May 20 to 25 from hibernation cages.

S. C. Chandler (June): The infestation in southern Illinois is greater than at this stage last year.

L. H. Shropshire (June 23): In Cook County the height of emergence from cages occurred June 6, 7, and 8.

Kentucky

W. A. Price (June 25): Trap records and pupae in bands indicate that second-brood moths will be on the wing about June 25 or 27.

Michigan

R. Hutson (June 11): First-brood moth emergence is at its peak as determined by bait pans in Fennville.

Wisconsin

C. L. Fluke (June 24): Codling moth is more abundant than usual. Eggs began hatching May 30.

Missouri

L. Haseman (June 20): The peak of first-brood moths and larvae occurred during late May and the first days of June somewhat irregularly. Pupation is beginning at Columbia.

Nebraska

M. H. Swenk (April 20 to June 1): The first pupation of overwintering larvae occurred on April 15, with some pupation nearly every day since. The peak of pupation was reached on May 6. On June 1 a total of 445 out of 700 larvae have pupated. The first adult moth was caught in our bait traps on May 6. From that night to May 25 moths have been caught in the bait traps every night except six. The largest catch to date in our six bait traps occurred on the night of May 20, when 79 were caught. The first emergence of adult moths from 700 overwintering larvae in the insectary occurred on May 12. There has been some emergence each day since, except during the cool period on May 16 and 17. The peak of emergence in the insectary to date was on May 24. Egg laying started on May 18, since that date has steadily increased, and up to date 2,026 eggs have been laid.

Washington

E. J. Newcomer (June 22): Much cool weather in Washington during the last month has prevented codling moths from depositing as many eggs as during the same period in 1931. Up to June 18, 2,225 were captured in 5 baits, as compared with 2,740 moths during the same period in 1931 in 5 baits.

Oregon

D. C. Mote (June 24): The first codling moth larvae seen in apple in the Willamette Valley June 15, a month later than last year.

#### EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Maine

J. V. Schaffner, Jr. (June 17): In Maine, heavy infestations were noted north as far as Augusta, but farther north the infestations seemed to be lighter and more scattered.

New Hampshire

J. V. Schaffner, Jr. (June 17): In the southern part of New Hampshire heavy infestations have been reported.

Vermont

H. L. Bailey (June 25): The eastern tent caterpillar's feeding season has been prolonged to the middle of June.

Massachusetts

A. I. Bourne (June 24): The tent caterpillar was comparatively scarce in western Massachusetts, while in the eastern and southeastern half of the State it was again very abundant.

Connecticut

W. E. Britton (June 24): The eastern tent caterpillar is scarce, but shows an increase over 1931.

New York

R. D. Glasgow (June 14): The orchard tent caterpillar appears to be more abundant on Long Island and throughout the Hudson Valley this year than it has been at any time during the past 3 years.

Pennsylvania      J. N. Knull (June 1): Several pin oaks in the vicinity of Gettysburg, Adams County, were entirely defoliated.

Maryland      E. N. Cory (June 22): Eastern tent caterpillars are very abundant.

Virginia      C. R. Willey (June 25): The eastern tent caterpillar is very abundant on wild cherry and other hosts.

FRUIT TREE LEAF ROLLER (Cacoecia argyrosila Walk.)

Connecticut      P. Garman (June 23): The fruit tree leaf roller is becoming abundant in the Wallingford district and doing considerable damage in at least one large commercial orchard.

New York      N. Y. State Coll. Agr., Weekly News Letter (June): The leaf roller was reported as more numerous than during the last few years in Chautauqua, Ulster, Green, Orleans, Wayne, and Dutchess Counties.

GREEN FRUIT WORM (Graptolitha antennata Walk.)

New York      N. Y. State Coll. Agr., Weekly News Letter (June): The green fruit worm is about as abundant as it was in 1930 in the Hudson River Valley and is doing more damage than usual in the Lake fruit belt. (Abstract, J.A.H.)

APHIDS (Aphidae)

Connecticut      P. Garman (June 23): The rosy apple aphid (Anuraphis roseus Baker) developed mainly in June and is very abundant in several large orchards in the county.

Massachusetts      A. I. Bourne (June 24): Aphids which during the early spring proved to be abundant very generally throughout the State had practically all disappeared by early June. They appeared to be for the most part the grain aphid (Rhopalosiphum prunifoliae Fitch) which migrated from the orchards in the early part of June.

New York      N. Y. State Coll. Agr., Weekly News Letter (June): Fruit aphids as a group are decidedly below normal in abundance this year. During the latter half of the month they appeared to be increasing in the western part of the State, particularly the rosy apple aphid. (Abstract, J.A.H.)

Indiana      J. J. Davis (June 27): The rosy apple aphid was reported abundant on apple early in June at Acton, Bedford, and Elwood.

Illinois      S. C. Chandler (June): A quite general infestation of rosy aphid occurred in southern Illinois orchards. It is now being checked by parasites and predators.

Michigan                    R. H. Pettit (June 22): Fruit aphids are very abundant.

Missouri                   L. Haseman (June 20): Both the rosy aphid and the woolly aphid (Eriosoma lanigerum Haussm.) have shown up in abundance in central and southern Missouri.

Washington                E. J. Newcomer (June 22): The rosy apple aphid is more numerous in the Yakima Valley than for many years.

LEAFHOPPERS (Cicadellidae)

Maine                      C. R. Phipps (June 25): Apple leafhoppers are very abundant.

Connecticut                P. Garman (June 23): Apple leafhoppers (Typhlocyba pomaria McAtee) are less abundant in New Haven County, although several severely infested orchards are known in both Hartford and New Haven Counties.

New York                   N. Y. State Coll. Agr., Weekly News Letter (June): T. pomaria was quite generally prevalent early in the month throughout the Hudson River Valley and by June 20 was becoming winged. In the western part of the State it is extremely abundant and causing considerable damage, particularly in the Niagara district.  
(Abstract, J.A.H.)

Michigan                   R. Hutson (June 11): Leafhoppers are numerous in some orchards of Ionia and Macomb Counties, enough to cause marked stippling of the leaves.

APPLE REDBUG (Lyzidea mendax Reut.)

Maine                      C. R. Phipps (June 25): For the first time this insect is recorded from Maine. Last season some apple leaves were sent in from Franklin County which appeared to be injured by redbugs. This season on June 8 several nymphs were collected and later adults were obtained from the same locality.

Massachusetts            A. I. Bourne (June 24): Redbug infestation was again rather spotty and practically every locality showed infestation, whereas in the same general region there were orchards which were comparatively free.

New York                   N. Y. State Coll. Agr., Weekly News Letter (June): The apple redbug began transforming to the adult state during the second week in June in the Hudson River Valley. In the western part of the State this insect is extremely numerous and destructive.  
(Abstract, J.A.H.)

A LEAF-CURLING MIDGE (Dasyneura mali Kieff.)

Massachusetts            E. P. Felt (June 24): The leaf-curling apple midge has become established at Ipswich. Infested material presenting the general

characteristics of the work of this European insect has been received. This is presumably the first record of the occurrence of this insect in America.

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

Ohio

T. H. Parks (June 22): Work of this insect can be easily found in almost any orchard visited. It has increased greatly since last year.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Maine

C. R. Phipps (June 25): The first flies appeared in our Cumberland County traps on June 20. These flies were from early varieties of apples. Our first flies appeared on June 19 in the same orchard in 1931. No flies have appeared as yet in our traps at Highmoor Farm from the same varieties.

PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut

P. Garman (June): The first brood came in strong and is quite abundant in many young orchards.

New York

P. J. Parrott (May 23): The first moth emerged May 20. (June 24): This insect is very abundant in western New York.

N. Y. State Coll. Agr., Weekly News Letter (June): During the last few days of May and the first of June this insect began infesting peach twigs; in Monroe and Wayne Counties it is steadily increasing. (Abstract, J.A.H.)

Delaware

L. A. Stearns (June 23): The peak of first-brood twig injury was observed during the last week of May and the first week in June; injury has been moderate; first first-brood moths appeared June 18.

West Virginia

L. M. Peairs (June 23): The oriental fruit moth is moderately abundant at Morgantown. There has been more than the usual early work.

Virginia

C. R. Willey (June 25): Oriental fruit moths are very abundant in Richmond, Henrico County and in adjoining counties.

Georgia

O. I. Snapp (June 11): Practically all of the first-brood larvae have pupated by this date in Fort Valley.

W. H. Clarke (June 22): There is a moderate infestation of this insect in Hampton, Monticello, and Luella; a light infestation in Thomaston and Griffin.

Ohio                    T. H. Parks (June 25): More injured terminals are found than usual at this time of year.

Illinois                E. W. Mendenhall (June 26): In Fairfield County I find the oriental fruit moth is doing considerable damage to peach orchards.

Michigan               S. C. Chandler (June): Twig infestation is more severe than last year. At present (June 16) second-brood larvae are hatching.

Tennessee              R. H. Pettit (June 22): This insect is moderately abundant.

Maine                   G. M. Bentley (June 22): This insect is moderately abundant.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Delaware               C. R. Phipps (June 25): Very abundant. Considerable injury to apples in certain Cumberland County orchards.

New York               N. Y. State Coll. Agr., Weekly News Letter (June): During the last week in May the plum curculio emerged in large numbers and by the first of June damage was quite evident in the Hudson River Valley. By the third week in the month it was quite generally prevalent throughout the State, but on the whole the damage was not unusual. (Abstract, J.A.H.)

Virginia               L. A. Stearns (June 23): First-brood grubs commenced issuing from fruit during the last week in May. Drops are heavily infested.

Georgia                C. R. Willey (June 25): The plum curculio is very abundant in Richmond, Henrico County, and in adjoining counties.

Georgia                O. I. Snapp (May 31): The first pupation of the season was recorded today at Fort Valley. The first larvae remained in the soil 15 days before pupating. Pupation is unusually late this year. It is beginning 6 days later than last year and 16 days later than in 1930, when the pupation was considered late. The late pupation this year does not necessarily indicate one generation, owing to the fact that the peach crop is correspondingly late. (June 6): The first pupae to transform to beetles in soil cells were recorded today at Fort Valley. Transformation is beginning 5 days later than last year and 14 days later than in 1930. (June 10): The parasites Triaspis curculionis Fitch and T. curculionis var. rufus Riley are much more abundant than usual. This is especially true of rufus. (June 16): The first new adults of the season emerged from the soil today. We are expecting second-generation eggs within two weeks, and Hiley, Georgia Belle, and Elberta peaches will, in all probability, contain larvae of the second brood.

W. H. Clarke (June 10): The first adults of the first brood emerged from life history cages today at Thomaston. (June 24): Very abundant. Heavy cage emergence.

Ohio

T. H. Parks (June 25): Very few curculio marks are to be found on apples though some are present on plums and a few on peaches in some orchards. The infestation is distinctly less than usual though greater than last year.

Illinois

S. C. Chandler (June): Apple orchards in southern Illinois have been injured severely because of the lack of fruit in the big peach orchards close by, and the curculios have concentrated on the apples. On account of the scarcity of fruit much damage has been done to peaches in southern Illinois. Jarrings at present indicate no let-up in the numbers feeding.

Michigan

R. H. Pettit (June 22): Plum curculios are very abundant.

North Dakota

J. A. Munro (June 18): E. O. Putnam reports the plum curculio as very abundant on wild plums in the vicinity of Bismarck.

Missouri

L. Haseman (June 20): The plum curculio bred earlier than usual this year. June 10 about 70 per cent of the early collection of worms were in the pupa stage and June 20 about 30 per cent were adults. Still feeding and breeding.

Mississippi

C. Lyle and assistants (June): The plum curculio is very abundant in the northern and northwestern parts of the State.

### PEAR

#### NEW YORK WEEVIL (*Ithyicerus noveboracensis* Forst.)

Massachusetts

A. I. Bourne (June 24): On June 10 our attention was called to injury in young pear orchards in Westfield, where the insects were injuring the twigs. These orchards were located in newly cleared land bordering on woods and sproutland.

#### A LEAF CURLING MIDGE (*Dasyneura pyri* Bouche)

New York

N. Y. State Coll. Agr., Weekly News Letter (June 6): Found the first pear leaf curling midge maggots on June 1 in the Hazen orchard in Ulster County.

### CHERRY

#### BLACK CHERRY APHID (*Myzus cerasi* Fab.)

New York

N. Y. State Coll. Agr., Weekly News Letter (June): The black cherry aphid started to appear in threatening numbers during the first week in June in the Hudson River Valley and also in the Niagara district, and by the middle of the month it was quite numerous and troublesome. (Abstract, J.A.H.)

Michigan

R. H. Pettit (June 22): The black cherry aphid is very abundant.

CHERRY FRUIT FLIES (Rhagoletis spp.)

New York

N. Y. State Coll. Agr., Weekly News Letter (June): The cherry fruit flies began appearing during the first week in June in the Hudson River Valley. (Abstract, J.A.H.)

Michigan

R. H. Pettit (June 9): Several specimens of the black-bodied cherry fruit fly (Rhagoletis fausta O. S.) emerged at Gobles and at Lawrence yesterday morning.

CHOKECHERRY MIDGE (Contarinia virginiana Felt)

Nebraska

M. H. Swenk (June 20): Chokecherries were badly damaged in an area extending from Howard County to Kearney County during the first half of June, by the chokecherry midge.

CHERRY LEAF MINER (Profenus collaris Mac.)

Michigan

R. H. Pettit (June 18): We received today for the first time in Michigan the cherry sawfly leaf miner; it is working on English Morello cherries in the vicinity of Grand Rapids, and constitutes, I believe, a record for the State.

PEAR SLUG (Eriocampoides limacina Retz.)

Nebraska

M. H. Swenk (April 20 to June 1): The first eggs of the pear slug were noticed on cherry at Lincoln on May 22. (D. B. Whelan.)

RASPBERRY

RASPBERRY SAWFLY (Monophadnoides rubi Harr.)

New York

N. Y. State Coll. Agr., Weekly News Letter (May 31): Sawflies are very plentiful in the raspberry sections of west New York. So far no larvae have appeared.

Nebraska

D. B. Whelan (April 20 to June 1): The larvae of the raspberry sawfly were from half to nearly full grown at Lincoln by May 15. Infestation moderate but not serious.

RASPBERRY CANE MAGGOT (Hylemyia rubivora Coq.)

Ohio

E. W. Mendonhall (June 8): The raspberry cane maggot was found in some of the raspberry plantations at New Carlisle. The pupa and the fly were observed.

RASPBERRY FRUIT WORM (Byturus unicolor Say)

New York

N. Y. State Coll. Agr., Weekly News Letter (June): The raspberry fruit worm is causing severe damage in Erie County; and it is also more or less troublesome in the Hudson River Valley. (Abstract, J.A.H.).

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Ohio

E. W. Mendenhall (June 8): The raspberry cane borer was found quite bad in some of the plantations at New Carlisle, Clarke County, and in Fairfield County.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Delaware

L. A. Stearns (June 23): The first individuals of the first-brood nymphs were observed June 7. Infestation is very light this year as compared with 1930 and 1931.

New York

N. Y. State Coll. Agr., Weekly News Letter (June): The grape leafhopper is generally more abundant than it was last year throughout the State. (Abstract, J.A.H.)

California

S. Lockwood (June 21): The grape leafhopper, while more numerous than normal, does not promise to do the damage this year that occurred in 1931. The area of infestation is not so large, evidently, nor is the infestation as heavy as last year.

GRAPE PLUME MOTH (Oxyptilus periscelidactylus Fitch)

Massachusetts

A. I. Bourne (June 24): Many complaints have been received. This insect is more abundant this year than normally.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

New York

N. Y. State Coll. Agr., Weekly News Letter (May 31): Because of the extremely light winter, the possibility of a heavy infestation of the grape berry moth is likely in western New York, Chautauqua County.

Delaware

L. A. Stearns (June 23): First spring-brood moths May 11, first first-brood eggs May 27, and first first-brood larvae June 3.

GRAPE ROOT WORM (Fidia viticida Walsh)

Delaware

L. A. Stearns (June 25): Apparently more abundant this year than in several years past. Injury to foliage much more severe than in 1931.

Nebraska

M. H. Swenk (June 1 to 20): The grapes in the Brownville, Nemaha County, area vineyards were reported to be showing an unusual abundance of the beetles of the grape root worm during the middle of June.

WHITE OAK MITE (Tetranychus willamettei McG.)

California

E. A. McGregor (June): The white oak mite was discovered this spring severely attacking vineyards in southern Tulare County. So far as known, this is the first record of this pest in central California, and extends its known range southward by fully 200 miles.

PACIFIC RED SPIDER (Tetranychus pacificus McG.)

California

S. Lockwood (June 21): A spider mite, probably T. pacificus, has been noted as present but of no importance as yet to grapes over a large area of the San Joaquin Valley. The infested area this year extends from San Joaquin County to Kern County, though these mites are rather difficult to find at the time of writing, in the southern part of San Joaquin Valley.

CURRANT

IMPORTED CURRANT WORM (Pteronidea ribesii Scop.)

North Dakota

J. A. Munro (June 18): Currant worm injury was particularly noticeable during the fore part of June.

Nebraska

M. H. Swenk (June 20): First larvae emerged on April 23. The last reports of injury were received May 17 and 18. (D.B. Whelan). First adults emerged on June 3 and 4.

CURRANT APHID (Myzus ribis L.)

Michigan

R. H. Pettit (June 22): Currant aphids are very abundant.

Nebraska

M. H. Swenk (June 20): In Knox County currants were considerably troubled by attacks by the currant aphids during the early part of June.

PECAN

FALL WEBWORM (Hyphantria cunea Drury)

Georgia

J. B. Gill (June 26): Infestations are common in pecan orchards between Albany, Putney, and Baconton.

Alabama

J. M. Robinson (June 22): The fall webworm has appeared in Auburn.

Mississippi

C. Lyle (June 23): The first colony observed in 1932 at State College was found in a pecan tree on June 21 by J. M. Langston. The colony was small.

PECAN BUDMOTH (*Gretchenia bolliana* Sling.)

Mississippi

G. L. Bond (June 18): Several outbreaks of this insect have been noted in the vicinity of Laurel.

WALNUT CATERPILLAR (*Datana integerrima* G. & R.)

Missouri

L. Haseman (June 20): Colonies of young larvae have been hatching at Columbia since about June 15. They are very abundant.

Mississippi

R. P. Colmer (June 19): The first walnut caterpillar was observed feeding on pecan at Moss Point, June 6.

PECAN PHYLLOXERA (*Phylloxera devastatrix* Perg.)

Mississippi

C. Lyle and assistants (June): Rather severe infestations were reported from Warren, Jasper, Jackson, Monroe, Alcorn, Lincoln, and Tate Counties.

CITRUS

MEXICAN FRUIT FLY (*Anastrepha ludens* Loew)\*

Mexico  
and  
Texas

Plant Quarantine and Control Administration, News Letter, No. 18 (June 1): Only one adult Mexican fruit fly was taken in Matamoros, Mex., during April. Infestations have been found this season in 59 groves, in the brush on the arroyo south of Harlingen, Tex., near the burial pit at McAllen, and in a shipment of fruit in San Antonio. These infestations extended from Brownsville to Mission, but were heavier in the upper end of the Valley.

The first known larvae of *A. pallens* Coq. were taken on April 15. These larvae were feeding in the fruit of *Bunelia angustifolia*, a shrub that is common throughout the brush lands of the Valley and known locally by the Mexican name La Coma. It is possible that other native fruits and berries may be hosts of this species but up to the present we have been unable to find the larvae feeding in other fruits. The *Bunelia* fruits seem to be rather heavily infested in spots and numerous pupae have developed from collected berries. No explanation is yet available to account for the presence of the adults in the citrus groves. A total of

\*Correction: Under *Anastrepha ludens* Loew (Insect Pest Survey Bulletin, Vol. XII, No. 4, p. 157) the subheading California should read Texas.

717 adults were taken in the traps during the month in Texas and 94 adults were taken in Matamoros, Mex.

GREEN CITRUS APHID (Aphis spiraecola Patch)

Florida

J. R. Watson (May 24): A. spiraecola is very abundant from Lake City south, but numbers are rapidly declining.

MELON APHID (Aphis gossypii Glov.)

California

E. A. McGregor (June): Present in greater than normal numbers on citrus this spring.

ORANGE THIRIPS (Scirtothrips citri Moult.)

California

E. A. McGregor (June): The infestation has been one of the severest on record. Four generations had developed up to June 16, and the injury to citrus fruits in unprotected or improperly treated orchards has been very great.

FULLER'S ROSE BEETLE (Asynonychus godmani Crotch)

Alabama

H. P. Loding (June 13): At present and for the last two weeks Fuller's rose beetle has been extremely abundant in Satsuma orange groves at Mobile and doing considerable damage, especially to young trees, which in some cases are nearly defoliated.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Mississippi

P. D. Sanders (May 27): Adults were very abundant under loose bark on pine rails, slabs and logs in Attala County near Kosciusko.

California

S. Lockwood (June 21): Reported from Humboldt County.

IMBRICATED SNOUT BEETLE (Epicauta imbricatus Say)

Virginia

C. B. Lanford (May 12): Specimens of weevils collected May 12. These insects were said to be doing considerable damage to tomato plants.

Tennessee

G. M. Bentley (June 22): The imbricated snout beetle has been reported on onions in Knox County.

BLISTER BEETLES (Meloidae)

North Carolina

C. H. Brannon (June 20): Epicauta vittata Fab. has made its appearance in large numbers on soy beans in Beaufort County.

North Dakota

J. A. Munro (June 18): E. pennsylvanica DeG. has been reported from several of the eastern counties of the State. It was reported as destructive to caragana hedges and potatoes. (June 20): It seems to be widely distributed over the country and is feeding ravenously on sweet clover, alfalfa, caragana, and other crops.

South Dakota

H. C. Seferin (June 14): Blister beetles are doing considerable damage this year. Because of the serious grasshopper outbreaks of last year, blister beetles are exceptionally abundant.

Tennessee

G. M. Bentley (June 22): E. vittata is moderately abundant in Knox County on morning-glory, sweet peas, and okra.

Alabama

J. M. Robinson (June 20): Blister beetles are very abundant on Irish potatoes at Vernon.

Mississippi

C. Lyle (June 23): Macrobasis unicolor Kby. was received from a correspondent at Steens, on June 7, with a report that Irish potato plants had been severely injured. Medium injury to tomatoes by E. lemniscata Fab. was reported from Highlandale, on June 14.

#### FLEA BEETLES (Halticinae)

Massachusetts

A. I. Bourne (June 24): Flea beetles have been generally very abundant on practically all the garden plants which they normally attack.

New York

P. J. Parrott (May 23): Phyllotreta vittata Fab. is very abundant.

#### WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California

E. O. Essig (June 6): D. soror is unusually abundant. Adults feeding upon the leaves, particularly near the tops of the plants. Not a serious pest, however, to the very rapidly growing alfalfa, in Yernalis.

E. A. McGregor (June): The western cucumber beetle (D. soror Lec.) seems to have been unusually abundant in citrus orchards in central California the present season. It has caused considerable perforation of foliage and a limited amount of injury to small green oranges to date. It was also observed to be rather severely attacking citrus foliage last year in Ventura County.

#### ROUGH STRAWBERRY ROOT WEEVIL (Brachyrhinus rugosostriatus Goeze)

Georgia

T. O'Neill (June 16): This is the first record we have of the occurrence of B. rugosostriatus in Georgia. Several adults received with reports of invading a residence at Marietta.

A WEEVIL (Aphrastus taeniatus Gyll.)

Georgia T. O'Neill (May 27): Specimens were collected at Flowery Branch with a report of damage to field beans and corn foliage.

A WEEVIL (Phytonomus rumicis L.)

Connecticut M. P. Zappe (June 18): Larvae very abundant, feeding on leaves and blossoms of sorrel grown for seed at Milford. A few adults present, eggs laid inside of stems. About 7 acres infested. Insect first taken in corn in Greenwich June, 1928. One specimen at Darien May 21, 1930. Adults rather abundant on dock. (See Ent. News 34: 280, 1923. L.L. Buchanan.)

SUGAR BEET THIRIPS (Heliothrips femoralis Heeger)

Ohio E. W. Mendenhall (May 27): The sugar beet thrips was quite bad on several species of Sedum, Kalanchoe flammula, Crassula arborescens, and Resembryanthemum aequilaterale in the greenhouses in Urbana. We find considerable damage to the succulent plants under glass. These plants were so bad that they had to be destroyed.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Maine C. R. Phipps (June 25): The seed corn maggot is present in very destructive numbers in bean fields in central Maine. It is causing quite a loss to cucumber producers in Cumberland County.

Maryland E. N. Cory (June 22): Seed corn maggot very abundant.

Illinois J. H. Bigger (June 17): The seed corn maggot is very abundant in western Illinois; 50 per cent of the adults out May 27.

Michigan R. H. Pettit (June 22): Seed corn maggot very abundant.

Wisconsin C. L. Fluke (June 24): The seed corn maggot is very abundant, ruining corn and beans in many fields over most of the State.

Kentucky W. A. Price (May 26): The seed corn maggot has been generally prevalent over the State, doing conspicuous damage in Bourbon and Fayette Counties.

South Dakota H. C. Severin (June 14): Damage is especially severe in weakly germinating corn in isolated areas over South Dakota.

Nebraska M. H. Swenk (April 20 to June 1): During the third week in May the seed corn maggot caused damage to planted corn in Cuming County, near West Point.

SPITTLE BUGS (Cercopidae)

Oregon D. C. Mote (May 23): Spittle bugs, Aphrophora permutata Uhler and P. spumarius Fall., still immature. In sections of Willamette Valley unusually heavy infestations on all forage, truck, garden, small fruit crops, and ornamentals. (W.D. Edwards.)

FALSE TARNISHED PLANT BUG (Lytus invitus Say)

Florida J. R. Watson (June 25): We have had unusually large numbers of complaints during the past few weeks. The insect seems to be injuring a large number of vegetable crops, including tomatoes, mustards, turnips, collards, etc., cowpeas, and young citrus trees and we have reports covering practically the whole of the peninsular part of the State.

A SNAIL (Helix pisana Muller)

California Monthly News Letter, Los Angeles Co. Agr. Comm. (May 28): A serious snail pest, H. pisana, was recently discovered on a ranch located partly in Los Angeles County and partly in Orange County. Subsequent surveys showed infestations to involve about 500 acres, including some Japanese truck gardens. Later surveys showed one more ranch infested in the Downey district and another near Artesia.

H. pisana was first found in San Diego County in 1919 in the La Jolla district. This was the first and only other infestation of its kind found in the United States. The infestation was extremely heavy in some places and in one instance 800 snails were counted on a single wild buckwheat plant less than 2 feet in diameter and about 18 inches high.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Connecticut N. Turner (June 20): Unusually abundant in the southern part of the State.

New York N. Y. State Coll. Agr., Weekly News Letter (June): Appeared late in May and egg laying was well under way in the western part of the State during the first week in June. (Abstract, J.A.H.)

Delaware L. A. Stearns (June 23): Abundant and causing considerable injury.

New Jersey T. J. Headlee, H. C. Nissley, and R. C. Burdette (June): Abundant throughout the State on potatoes and less so on tomato and eggplant.

Pennsylvania      J. N. Knull (June): This beetle is very abundant in Franklin County.

Maryland      E. N. Cory (June 22): Colorado potato beetles are very abundant.

Florida      J. R. Watson (May 24): Increasing in numbers in main potato sections in northern Florida. (June 24): Very abundant and doing much damage to eggplant in Alachua County.

Michigan      R. H. Pettit (June 22): Very abundant.

Wisconsin      C. L. Fluke (June 24): More abundant than for several years.

Iowa      C. J. Drake (June 22): Very abundant and may be found in almost any potato patch in Iowa.

North Dakota      J. A. Munro (June 18): Unusually abundant.

Nebraska      M. H. Swenk (June 1): Very abundant.

Mississippi      C. Lyle and assistants (June): Very abundant.

THREE-LINED POTATO BEETLE (Lema trilineata Oliv.)

Connecticut      N. Turner (June 6): Much more abundant than usual in the southern part of the State.

A TORTOISE BEETLE (Deloyala clavata Fab.)

Connecticut      N. Turner (June 6): Unusually abundant this year on Irish potatoes at Cheshire.

HORNWORMS (Phlegethontius spp.)

New Jersey      T. J. Headlee, C. H. Nissley, and R. C. Burdette (June): P. quinquemaculata Haw. was found in Cumberland, Salem, Gloucester, and Camden Counties. Eggs were found in all four counties and newly hatched larvae in Cumberland, Salem, and Gloucester Counties. This infestation is apparently general on tomatoes.

Georgia      O. I. Snapp (June 9): Hornworms (P. sexta Johan.) are more abundant than usual. and have caused considerable damage to tomato plants in Fort Valley gardens.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

Connecticut      A. E. Wilkinson (June 18): Flea beetles are causing damage to potatoes, many holes in leaves, 25 to 50 beetles per plant.

New Jersey      T. J. Headlee and H. C. Nissley (June 9): Flea beetles were found abundantly throughout the State on potatoes and less abundantly on tomato and eggplant.

Ohio                    T. H. Parks (June 15): Potato flea beetles have been much more injurious than usual this year.

Michigan              R. Hutson (June 11): Flea beetles are extremely numerous on tomatoes at Williamston and Lake Odessa, and on potatoes at Springport and Fennville.

North Dakota         J. A. Munro (June 18): Recent observations indicate that they are prevalent over a large area of the potato-growing section of the State.

South Dakota         H. C. Severin (June 14): More than average abundance.

Iowa                   C. J. Drake (June 22): The potato flea beetle is very abundant.

**POTATO APHID (Illinoia solanifolii Ashm.)**

Virginia              H. G. Walker (June 27): A very severe outbreak of the pink and green potato aphid occurred about two weeks ago; and severe damage, especially to tomatoes in the Norfolk and Portsmouth area and on the Eastern Shore of Virginia, has occurred.

**POTATO LEAFHOPPER (Empoasca fabae Harr.)**

Illinois               L. H. Shropshire (June 23): Potato leafhoppers are very abundant in Cook County. They appeared on June 8 to 12.

Missouri               L. Haseman (June 20): Potato leafhoppers in central Missouri June 15; considerable tip burn from hoppers on potatoes.

**TOMATO PSYLLID (Paratriozza cockerelli Sulc.)**

Utah                   G. F. Knowlton (June 15): The potato psyllid was found to have matured one generation on tomato in the field under "white caps," and deposited eggs by June 11 at Farmington. Adults and eggs were moderately abundant upon potatoes at the same time.

**EGGPLANT**

**EGGPLANT LACEBUG (Gargaphia solani Heid.)**

New Jersey            T. J. Headlee, H. C. Nissley, and R. C. Burdette (June 21): Found less numerous, probably owing to the heavy rains. In the Swedesboro section of Gloucester County half-grown young lacebugs were found on eggplant and eggs of this insect were hatching in Burlington County.

**EGGPLANT FLEA BEETLE (Epitrix fuscula Crotch)**

Indiana                J. J. Davis (June 27): The eggplant flea beetle was very destructive to recently set eggplants at Lafayette June 10.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Rhode Island

A. E. Stene (June 23): Mexican bean beetles are abundant throughout the State.

Massachusetts

A. I. Bourne (June 24): Large numbers of beetles appeared in newly planted fields soon after the plants appeared above ground. In some cases serious injury to foliage has already taken place. At the present time the eggs have just begun to hatch. The insect has established itself throughout the three counties in the Connecticut Valley and to some extent throughout the southern and southeastern parts of the State.

Connecticut

N. Turner (June 20): Beetles came out of hibernation starting May 24. Eggs appeared June 6 in the southern part of the State, and hatched June 16. Beetles were still coming out of hibernation June 15. The infestation is very heavy in the southern part of the State, but apparently lighter in northern Connecticut.

New York

P. J. Chapman (June 23): Mexican bean beetles are very abundant in the Hudson River Valley. Mostly troublesome in garden patches.

New Jersey

T. J. Headlee, R. C. Burdette, and C. H. Nissley (June): Very abundant throughout the State. Oviposition was observed in the southern part of the State on the 7th, 8th, and 9th. On the 13th and 14th larvae were observed, and by the 21st they were nearly full grown in the southern part of the State.

Delaware

L. A. Stearns (June 23): Emergence commenced April 19 and was at the peak about June 7. Fifty per cent survival in hibernation cage. Young beans with abundance of adults and eggs June 16.

Maryland

J. A. Hyslop (June 25): More abundant near Silver Spring than it has been during the last few years.

West Virginia

L. M. Peairs (June 23): The Mexican bean beetle is moderately to very abundant at Morgantown. Getting a good start.

Virginia

C. R. Willey (June 25): The Mexican bean beetles are very abundant at Richmond, Henrico County, and in adjoining counties.

North Carolina

C. H. Brannon (June 16): Severe damage is appearing much earlier than usual in many localities.

South Carolina

A. Lutken (June 24): Mexican bean beetles are very abundant.

Georgia

W. H. Clarke (June 22): A few plants of lima beans found infested in a 4-acre field at Louisville; full-grown larvae

present. At Thomaston a full-grown larva was submitted by a farmer; serious damage is being done to string beans and slight damage to lima beans.

Ohio T. H. Parks (June 25): The beetle is very abundant. The first generation is injuring beans in northern Ohio.

Indiana J. J. Davis (June 27): Apparently more abundant than usual; damage in northern Indiana is being reported. The first report was received from Sunman May 28, but most of the reports came in after June 6.

Illinois S. C. Chandler (June): Mexican bean beetle first found in southern Illinois on June 6 at Albion, Edwards County; infestations also found at Lawrenceville, and Mt. Carmel.

Kentucky G. Myers (June 25): The Mexican bean beetle is appearing in unusual numbers on beans near Buffalo and Mt. Sherman, Larue County, and southward in Green County.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Southern States P. D. Sanders (April, May, and June): This insect was reported to be more injurious to beans than normal by the following: C. O. Hopkins in Louisiana, C. Lyle in Mississippi, A. Lutken in South Carolina, and A. G. Amstein in Arkansas.

Virginia C. R. Willey (June 25): The bean leaf beetle is very abundant at Richmond, Henrico County, and in adjoining counties.

Ohio T. H. Parks (June 3): Considerable injury has been caused by beetles feeding on bean leaves. Injury is confined to southern counties.

Alabama K. L. Cockerham (May 25): The bean leaf beetle was plentiful at Foley on snap beans.

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

Alabama K. L. Cockerham (May 25): The cowpea pod weevil is very seriously damaging snap beans in our experimental plots at Foley. Nearly every blossom, bud, or young bean had at least one weevil on it.

BEAN APHID (Aphis rumicis L.)

New Jersey T. J. Headlee, C. N. Nissley, and R. C. Burdette (June 14): The bean aphid has been found in large numbers on Fava beans in Monmouth County.

PEAS

PEA APHID (Illinoia pisi Kalt.)

Ohio T. H. Parks (June 20): Peas being grown for canning factories are quite seriously attacked in Pickaway County. Predacious laryae of ladybugs are quite abundant.

Michigan R. H. Pettit (June 17): The pea aphid is on the rampage in Michigan. It has already destroyed part of the crop in Tuscola, Saginaw, Bay, Midland, Gratiot, Kent, and Newaygo Counties and points north. Entomophthora is taking its toll of the lice.

CABBAGE

A CABBAGE BUTTERFLY (Pieris monuste L.)

Florida H. T. Fernald (June 22): The migratory flight southward of the large cabbage butterfly which I noted in April and May showed no signs of appearance this year until about June 10 and is now in full progress along the Indian River as far as Melbourne. I have not been along the river north of Indian River City or south of Melbourne to see how much farther it goes. Fifty or more of the butterflies in sight at once, all working their way south, is an interesting sight.

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

New Jersey T. J. Headlee, C. H. Nissley, and R. C. Burdette (June 14): The diamond-back cabbage moth was found in Gloucester, Camden, and Monmouth Counties. (June 21): The caterpillars found in Camden County have largely gone to pupation.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Ohio T. H. Parks (June 3): This insect, which is not usually troublesome, is causing some injury in Lawrence and Scioto Counties.

Kentucky W. A. Price (June 25): The harlequin bug continues abundant and a source of damage to cabbage in several sections of the State.

Tennessee G. M. Bentley (June 22): The harlequin bug is moderately abundant. Reported on cabbage, turnip, nasturtium, and mustard.

Alabama J. M. Robinson (June 20): Very abundant probably all over the State.

Oklahoma C. F. Stiles (June 21): Reported quite numerous in central Oklahoma.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

Connecticut D. S. Lacroix (June 3): Very abundant on cabbage and cauliflower at Windsor.

New York N. Y. State Coll. Agr., Weekly News Letter (June): Quite generally prevalent throughout the western part of the State and did considerable damage during the first half of the month. (Abstract, J.A.H.)

CABBAGE APHID (Brevicoryne brassicae L.)

Illinois L. H. Shropshire (June 23): Very abundant and causing severe damage on early cabbage grown from plants secured outside the State.

MELONS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Massachusetts A. I. Bourne (June 24): They were somewhat late in appearing but they appear to be more abundant than usual.

Virginia C. R. Willey (June 25): The striped cucumber beetle is very abundant in Richmond, Henrico County, and in adjoining counties. It is apparently taking a heavy toll.

New Jersey T. J. Headlee, C. H. Nissley, and R. C. Burdette (June 9): Striped cucumber beetles were generally present throughout the State on young melon, cucumber, and squash. (June 21): It was slightly less numerous than last week.

Illinois L. H. Shropshire (June 23): Very abundant in Cook County, where they have completely destroyed large plantings of cucumbers.

Michigan R. H. Pettit (June 22): Very abundant.

North Dakota J. A. Munro (June 18): Very abundant at Fargo.

South Dakota H. C. Severin (June 14): More abundant than usual on cucumbers over the State.

Oklahoma C. F. Stiles (June 21): Still quite numerous throughout the greater part of the State.

SQUASH BUG (Epilachna borealis Fab.)

Mississippi K. L. Cockerham (May 23): On May 23 two specimens were collected on cantaloupes at Biloxi. These are the only specimens seen or collected by me in this vicinity in over three years.

MELON APHID (Aphis gossypii Glov.)

Iowa

C. J. Drake (June 22): Extremely abundant upon melons and cucumbers. A canning company plans to purchase a sprayer or duster for practically every farmer who is growing cucumbers for it under contract.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Georgia

O. I. Snapp (June 10): Apparently the insect is more abundant than usual south of Macon. Heavy infestations were observed at Fort Valley and Macon.

W. H. Clarke (June 22): Squash bugs destroyed squash in a garden at Thomaston. Half-grown nymphs present in large numbers.

Indiana

J. J. Davis (June 27): The squash bug is abundant at Perrysville.

Illinois

L. H. Shropshire (June 23): Overwintering adults are very abundant in the fields all over Cook County. No oviposition had occurred up to June 18.

ONIONS

ONION THIRIPS (Thrips tabaci Lind.)

New Jersey

T. J. Headlee, C. H. Nissley, and R. C. Burdette (June 9): Onion thrips were found throughout the State mainly upon onions but to some extent upon cabbages, where they stood adjacent to heavily infested onion fields. The attack on the early onion in southern New Jersey has already accomplished a large share of the damage it will do, because through the agency of thrips and dry weather the older onions have received a setback from which they will not recover in any considerable degree.

Indiana

J. J. Davis (June 27): Onion thrips began to show up in threatening numbers in many sections of northern Indiana early in June. However, serious damage has not yet developed but is anticipated in some sections.

Illinois

L. H. Shropshire (June 23): Onion thrips are multiplying rapidly. Commercial damage to onions will occur within a short time if weather continues hot and dry.

Tennessee

G. M. Bentley (June 22): Onion thrips are moderately abundant on roses in Knox County.

California

S. Lockwood (June 21): The thrips is more numerous than usual; considerable damage may result to onions in the Delta region of Sacramento and San Joaquin Valley, 50 to 60 thrips per onion plant being commonly observed.

### SWEETPOTATO

#### GOLDEN TORTOISE BEETLE (Metriona bicolor Fab.)

New Jersey

T. J. Headlee, R. C. Burdette, and C. H. Nissley (June): During the second week in the month these insects (Cassida sp.) were present in large numbers on sweetpotato in Burlington, Camden, and Gloucester Counties and in smaller numbers in Atlantic and Cumberland Counties. By the 21st of the month they were apparently less numerous.

Maryland

J. Westrod (June 7): Specimens of M. bicolor forwarded. Eating holes in leaves of sweetpotato plants. at Sudlerville.

#### SWEETPOTATO FLEA BEETLE (Chactocnema confinis Crotch)

Mississippi

C. Lyle (June 23): Reported quite abundant on sweetpotato plants at Oxford on June 2.

### STRAWBERRY

#### STRAWBERRY LEAF ROLLER (Ancylis comptana Froel.)

Delaware

L. A. Stearns (June 25): Somewhat more abundant than at this date in 1929, 1930, and 1931.

New York

N. Y. State Coll. Agr., Weekly News Letter (May 31): The strawberry leaf roller is developing rapidly in one planting of strawberries in Chautauqua County, the plants of which were secured from outside the State. It is the only planting in the county where any damage is being done. It is now in all stages of development. Very few larvae have yet pupated.

Ohio

T. H. Parks (June 25): This insect has been reported as very injurious to strawberry beds on farms near Circleville and Paulding.

Nebraska

M. H. Swenk (June 20): On June 10, 11, and 12 several correspondents reported serious damage to strawberry plants. These reports came from Cuming and Madison Counties west to Thomas County and south to Hall County.

SUGAR BEETS

BEET WEBWORM(Loxostege sticticalis L.)

North Dakota      J. A. Munro (June 18): According to reports adults are distributed generally over a large portion of the State but are most abundant in the northwestern group of counties, including Williams, Divide, Burke, Bottineau, Ward, McLean, and Rolette.

South Dakota      H. C. Severin (June 14): An enormous flight of moths occurred in South Dakota during May. No serious reports of damage as yet.

Montana      A. L. Strand (June 21): Moths are present in tremendous numbers over practically the entire State. Serious damage to alfalfa, field peas, gardens, and sugar beets is expected unless adequate control measures are used.

Wyoming      A. G. Stephens (June 24): Webworms are moderately abundant in the northeastern and central part of Wyoming.

BEET LEAFHOPPER (Eutettix tenellus Bak.)

Utah      G. F. Knowlton (June 20): Beet leafhoppers are moderately abundant throughout northern Utah.

California      A. E. Michelbacher (June 20): Was told that there has been a considerable increase in the amount of curly top over that present a month ago around Clarksburg.

SPRING TAILS (Collembola)

Utah      G. F. Knowlton (May 9): Specimens were collected May 5 and 9, respectively, by G. F. Knowlton at Logan and Elwood where they were said to be damaging young seedling sugar beets. These are Onychiurus armatus Tull. See Proc. U. S. N. M. 53: 644. Pseudosinella violenta Fols. See Amer. Mus. Novitates, No. 108. (Det. J. W. Folsom.)

S O U T H E R N - F I E L D I N S E C T S

COTTON

PINK BOLL WORM (Pectinophora gossypiella Saund.)

Florida      U. S. D. A., Press Service, Office of Information (June 14): This insect was found in a small patch of not more than 2 acres of cultivated cotton near Miami and in wild cotton in a district extending from south of Miami to Key West.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

Florida      F. S. Chamberlin (June 3): Flea beetles, mainly second-brood individuals, are considerably more abundant than usual in Gadsden and Madison Counties.

Kentucky      W. A. Price (May 26): Flea beetles have been serious in tobacco beds at Lexington, Paducah, Nicholasville, Georgetown, and Shelbyville.

Tennessee      G. M. Bentley (June 22): The tobacco flea beetle is moderately abundant.

POTATO STALK BORER (Trichobaris trinotata Say)

North Carolina      C. H. Brannon (June 15): This species is very seriously damaging tobacco near Richland, Onslow County, by eating into the midrib of the leaves. H. S. Barber, who identified the species, advises me that it has not heretofore been known to injure the tobacco plants, but usually attacks potato and horse nettle.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

North Carolina      C. H. Brannon (June 15): This species is feeding on tobacco leaves all over the State, causing serious damage in some sections.

TOBACCO BUDWORMS (Heliothis spp.)

North Carolina      C. H. Brannon (June): Damage by H. obsoleta Fab. is evidently unusually severe in practically all eastern counties.

Florida      F. S. Chamberlin (June 4): H. virescens Fab. appears to be about normally abundant on tobacco so far this season in Gadsden County.

POTATO TUBER WORM (Gnorimoschema operculella Zell.)

Florida      F. S. Chamberlin (June 23): A very light infestation is occurring in the Gadsden County tobacco district.

TOBACCO THRIPS (Frankliniella fusca Hinds)

Florida      F. S. Chamberlin (June 16): Recent heavy rains have cut down the population on tobacco in Gadsden County and have eliminated the possibility of damage this season.

FOREST AND SHADE - TREE INSECTS

PERIODICAL CICADA (Magicicada septendecim L.)

Connecticut      M. P. Zappe (June): Heard the adults and captured one in North Branford.

Pennsylvania      J. N. Knoll (May 30): The first periodical cicadas were observed in Franklin County: Mont Alto, May 30, Pond Bank, June 1, Rouzerville, June 4, Warren Township, June 6, Horse Valley, June 10. Adams County: May 31, Cold Springs, June 9. Lycoming County: Loyalsock, June 5. Juniata County: Susquehanna Township, June 10, Turbett Township, June 15, Fayette Township, June 16.

Maryland      R. A. Kemp (June 6): In evidence for about 10 days, a few scattered specimens near Frederick, but more numerous in the Catoctin Mountains, about 5 miles west of Frederick. The brood is evidently small.

W. H. Larrimer (May 30): A few periodical cicadas heard and some pupal cases found at 3304 Rittenhouse Street, Chevy Chase.

H. C. Skeels (June 2): Found on Holly Avenue in Takoma Park.

F. W. Mills (June 1): Specimens and examples of their destructive effects on some apple trees at 15 North Melrose Street, Chevy Chase.

J. A. Hyslop (June 27): In digging in the ground, found many pupae, evidently of Brood X and two fourth instar larvae (15 mm long), evidently of Brood XIV.

North Carolina      R. W. Leiby (June 8): The periodical cicada is appearing in Burke, Henderson, Buncombe, and Macon Counties according to reports. Its appearance was first observed between May 20 and 25.

Z. P. Metcalf (June 22): Appearance of the 17-year locust has been reported generally in Burke and McDowell Counties.

South Carolina      J. A. Berly (June 21): The insects were found in portions of Oconee, Pickens, and Greenville Counties. In all cases they were confined to the foothills. In Oconee County we were able to go to the State line in five places, and in each case the cicadas occurred across the river on the Georgia side.

Georgia      C. H. Alden (June 21): Very abundant at Tiger, Rabun County. Heavy emergence in wooded areas from May 20 to June 10. Some damage done to young apple trees.

W. H. Clarke (May 30): Berly and Sherman of Clemson College reported finding a single specimen in Stephens County.  
(June 23): Five specimens taken on Pine Mountain, Pike County, today. Present in moderate numbers.

Indiana J. J. Davis (June 27): The 17-year cicada was reported from Ashley June 1. It was abundant the first half of June in vicinity of Bedford.

Illinois W. P. Flint (June 15): First collection made in Vermilion County on May 29. Appeared in small numbers in Morgan and Mason Counties June 13.

Wisconsin C. L. Fluke (June 24): Have had only two reports on the periodical cicada so far, one from Door County, and one from Vernon County.

Oklahoma C. E. Sanborn (June 14): Mr. P. W. Oman, according to H. Morrison, of the U.S.D.A., has identified the species as Magicicada cassini Fisch. This is often determined as Magicicada septendecim cassini Fisch. Mr. Oman's present opinion is that it should stand as a distinct species. Payne County, May 31. G. A. Bieberdorf Coll.

#### CANKER WORMS (Geometridae)

New England E. P. Felt (June 24): The fall canker worm, Alsophila pomaria Harr., has been exceptionally abundant in southwestern New England, defoliating individual trees and groups of trees, particularly apple and elm.

Vermont H. L. Bailey (June 25): Fall canker worms were plentiful on elms at St. Johnsbury, June 8. Have also been reported from vicinity of Burlington. No complete defoliation observed. Feeding by larvae continued till third week in June.

Wisconsin F. C. Craighead (June 22): A letter from Goodman, June, 1932, reads: "A leaf eater or small green worm is attacking the better stands of maple this season. Where the leaf eaters are most prevalent the leaves on full-aged trees are 50 to 75 per cent consumed, the upper leaves of saplings are in like condition, and leaves on lower branches are all eaten. The leaves on seedlings are eaten right back to the stems. The leaf eater was at work in milder form in the early summer of 1931 in the Sawyer timber. The growth of the infested trees will be retarded this year."

(Report made by Mr. Flanders of Oconto June 4): "A small green worm has appeared in the hardwood timber at Oconto and is rapidly denuding many maple trees, leaving no foliage whatever. The foliage on several acres has been destroyed in various spots several miles apart. These worms also appear on other hardwood timber, but especially on the maple." (Det. as Paleacrita vernata Peck by description of injury.)

North Dakota

J. A. Munro (June 18): Cankerworm injury is general throughout the Red River Valley. F. D. Butcher, Federal Entomologist, following a recent trip, reports that he saw cankerworm injury all the way from Fargo to Pembina.

SATIN MOTH: (Stilpnobia salicis L.)

Maine

C. R. Phipps (June 25): The satis moth has become increasingly destructive in the region of Orono, Bangor, and Old Town this year. Most of the caterpillars are full grown. Many poplar trees have been cut down in this section during the past two weeks (June 20).

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Maine

C. R. Phipps (June 25): Forest tent caterpillars are unusually abundant.

H. B. Peirson (June): A slight infestation of the forest tent caterpillar was reported June 14 in Jim Pond Township. One of the heaviest outbreaks ~~no~~ have ever seen has been reported from Township No. 8, Hancock County. Complete defoliation of poplars and white birch over a large area. Highway literally swarming with migrating larvae.

GYPSY MOTH (Porthetria dispar L.)

United States

Plant Quarantine & Control Administration, News Letter No. 18 (June 1): Between the last part of April and early June, gipsy moth egg clusters usually hatch in New England. The first hatch this year was observed on May 2 at Melrose and Burlington, Mass., and Vernon, Vt. Since then hatching has been noticed in several other localities. The intensive survey of the northern half of Bridgewater and the southern half of Hillsboro Townships, Somerset County, N. J., was completed during April. A total of 7,042 acres of woodland was scouted and no infestation found.

Maine

H. B. Peirson (June): Gipsy moth very abundant in June in lower half of State.

ASH

AN ASH SAWFLY (Tomostethus bardus Say)

Rhode Island

E. P. Felt (June 24): An ash sawfly, probably T. bardus, was reported by W. G. Aborn as very abundant and defoliating ash trees at Providence.

ASH BORER (Podosesia fraxini Lugar)

South Dakota

H. C. Severin (June 14): Abundant and more so than normal. Damage severe, generally.

BIRCH

BIRCH CASE BEARER (Coleophora salmani Hein.)

Maine

H. B. Peirson (June 1): The birch case bearer was observed June 20 in Bar Harbor. Very heavy defoliation. This insect is spreading quite rapidly.

New Hampshire  
and  
Massachusetts

E. P. Felt (June 24): Birch case bearer work was received from Lebanon, N. H., through A. W. Dodge of Boston, Mass. This appears to be the first record of this insect at any distance from Bar Harbor, Maine.

BIRCH LEAF MINER (Fenusia pumila Klug)

Maine

H. B. Peirson (June 9): A leaf miner, which has been very abundant in the State for several years, is just beginning to become noticeable in China, Kennebec County.

Connecticut

R. B. Friend (June 24): As abundant as usual throughout the State.

CYPRESS

CYPRESS LEAF MINER (Recurvaria apicitripunctella Clem.)

New England  
and  
New York

E. P. Felt (June 24): The cypress leaf miner has been abundant upon individual bald cypress in southwestern New England and southeastern New York, the miners being so numerous as practically to prevent the development of foliage.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Maine

H. B. Peirson (June): The elm leaf beetle was reported June 13 at Skowhegan; slight feeding.

Massachusetts

J. V. Schaffner, Jr., (June 17): Adults are very abundant at Danvers and feeding is very noticeable on 50 to 100 shade trees.

New York

R. D. Glasgow (June 14): Eggs were found at Garden City, Long Island on June 4; they were found today at Albany.

Kentucky

W. A. Price (May 26): The elm leaf beetle is present in numbers at Nicholasville and Lexington.

A BARK BEETLE (Scolytus multistriatus Marsh.)

New York

E. P. Felt (June 24): The European elm bark beetle was reported as generally infesting a sickly elm at Tarrytown.

MOURNING-CLOAK BUTTERFLY (Hamadryas antiopa L.)

Maine H. B. Peirson (June): Observed to be common June 16 in Augusta and Westbrook.

Rhode Island A. E. Stene (June 23): Has been sent in from nearly all sections of the State with the report that it is unusually abundant.

Pennsylvania J. N. Knull (June 3): Numerous elm trees in Franklin County have been defoliated.

WOOLLY ELM APHID (Eriosoma americanum Riley)

Maine H. B. Peirson (June): The elm aphid was observed June 20 very abundant through the State.

Nebraska M. H. Swenk (June 1 to 20): Many complaints have been received, especially since June 10, from Phelps, Polk, and Custer Counties, west to southern Sheridan and Scotts Bluff Counties, a region where these trees are especially valuable.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

New York E. P. Felt (June 24): The elm cockscomb gall was reported from Westbury, Long Island.

Indiana J. J. Davis (June 27): The elm cockscomb gall was reported abundant during the past month at Brookville, Lowell, and South Bend.

Nebraska M. H. Swenk (June 1 to 20): From Holt County west to Sheridan, Scotts Bluff, and Perkins Counties, are being received numerous reports of the deforming of elm leaves.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Maine H. B. Peirson (June): European elm scale observed June 20 at Augusta; locally abundant.

Connecticut W. E. Britton (June 23): Present in usual abundance on young trees.

ELM LEAF MINER (Kaliotosphinga ulmi Sund.)

New York E. P. Felt (June 24): Locally very abundant at Brewster and Oyster Bay. In the former case the leaves appeared at a distance as though they had been destroyed by fire.

FIR

BALSAM TWIG APHID (Mindarus abietinus Koch.)

Maine H. B. Peirson (June): Balsam twig aphid observed quite abundant curling needles June 8 at Strong.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Maine H. B. Peirson (June): Pine leaf scale observed May 30 at Bar Harbor. Quite abundant on fir foliage. Probably a new record for this host.

FIR APHID (Dreyfusia piceae Ratz.)

Maine H. B. Peirson (June): Fir bark louse very abundant in June along the coast of Maine. Large amounts of fir being killed.

LARCH

LARCH CASE BEARER (Coleophora laricella Hon.)

New England J. V. Schaffner, jr. (June 17): Observations made and reports received from various sources during May and June indicate a general infestation wherever larch occurs in New England.

Maine C. R. Phipps (June 25): This pest was very abundant during the season of 1931 with the result that most of the larch trees in the State were turned brown in June. This condition is being repeated this season although some of the browning has been occasioned by late frosts.

Vermont H. L. Bailey (June 25): The larch case bearer appears to have been more abundant than ever before throughout all parts of the State. A high percentage of the native larch trees were almost completely defoliated. New foliage was starting on many of them June 23.

New York R. D. Glasgow (June 14): The larch case bearer is very abundant throughout eastern and northern New York. Adults were observed in Westchester County on the 8th, and in Warren County on the 12th. In northern New York this insect appears to have become active as soon as the buds opened, the foliage throughout large areas having been destroyed before it had attained any considerable length. A very large proportion of the tamarack in northeastern New York is now entirely brown. This insect has caused serious and progressively increasing damage to larch in northern New York during the past 5 years. Many tamarack trees have already died as a result of repeated defoliation by this insect.

LOCUST

LOCUST BORER (Cyllene robiniae Forst.)

Ohio      E. W. Mendenhall (June 15): The locust borer is very bad in Columbus on ornamental locust trees planted on private properties.

LOCUST LEAF MIDGE (Obolodiplosis robiniae Hald.)

New York      E. P. Felt (June 24): The locust leaf midge was reported as generally infesting honey locust near Farmingdale, Long Island.

A TREEHOPPER (Vanduzea arcuata Say)

Pennsylvania      J. N. Knull (June 10): This membracid is very abundant on black locust in Horse Valley, Franklin County. The adults and nymphs are attended by the red mound-building ants (Formica exsectoides Forel).

MAPLE

MAPLE LEAF STEM BORER (Priophorus acericaulis MacG.)

Connecticut      W. E. Britton (June 23): Seemingly more abundant than for several years.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Ohio      E. W. Mendenhall (June 8): Injury extremely severe on soft maple trees on State and Center Streets in Springfield and Greenville. They are so abundant that the undersides of the limbs are white with this cottony substance and the leaves wet with their secretions. The twigs and larger limbs are dying.

MAPLE NEPTICULA (Nepticula sericopeza Zell.)

New England  
and  
New York      E. P. Felt (June 24): The maple Nepticula is breeding in large numbers in the seeds of Norway maple in southwestern New England and southeastern New York north at least to Poughkeepsie.

PINE

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Massachusetts      J. V. Schaffner, jr. (June 18): In eastern Massachusetts the severe infestations still persist. Most of the infestations are in ornamental plantings of Austrian, red, Scotch, and Mugho pines. Moths began issuing in the laboratory on June 10.

Connecticut

R. B. Friend (June 24): The insect is in flight and appears as abundant as last year. Adults have been reared from western yellow pine collected in a nursery near New Haven.

New York

R. D. Glasgow (June 14): The moth has become increasingly destructive to pines, particularly to Pinus resinosa and P. ponderosa, in some parts of southeastern New York. This insect is a serious pest also of P. montana var. mughus, to P. sylvestris, and to P. nigra, and occurs on other species of pine as well. It has been reported by inspectors of the State Bureau of Plant Industry and by scouts of the State Conservation Department from many parts of the State. It is reported to be particularly well established also in Niagara County.

A TIP MOTH (Evetria albicapitana Busck)

Vermont

H. L. Bailey (June 25): Adults were found in considerable number about a large Jack pine plantation on State game preserve at Milton, June 13. The work of this species had previously been confused with that of E. constockiana Fern. in this plantation and probably elsewhere in the State.

WHITE-PINE WEEVIL (Pissodes strobi Peck)

Maine

H. B. Peirson (June): The white-pine weevil was reported June 21 at Augusta as very abundant. Tops of weeviled trees just wilting.

SPRUCE SAWFLY (Neodiprion abietis Harr.)

Maine

H. B. Peirson (June): The spruce sawfly was observed at Alfred June 14 defoliating pitch pine.

PINE BARK APHID (Pineus strobi Htg.)

Ohio

E. W. Mendenhall (June 22): Pine bark aphids (Chermes pini-corticis Fitch) were found quite bad on Austrian pine in a nursery near Springfield.

A GALL MITE (Eriophyes pini Nal.)

New York

R. D. Glasgow (June 14): Mite gall specimens, possibly the work of the European pine mite, have been received from western New York, where they were collected from young Scotch pine trees that are said to have been shipped into the State 4 or 5 years ago from a nursery in the Middle West.

POPLAR

COTTONWOOD LEAF BEETLE (Chrysomela scripta Fab.)

Maine

H. B. Peirson (June): Reported June 14 in Jim Pond Township quite heavily feeding in large stand of poplars.

SPRUCE

SPRUCE NEEDLE MINER (Epinotia nanana Treit.)

Maine

H. B. Peirson (June): The spruce webworm was reported June 3 as quite general along the coast. Reports from inland cities are also being received.

J. V. Schaffner, jr. (June 17): Observations were made June 2 to 4 in spruce areas in Cumberland, Sagadahoc, and Lincoln Counties. Infestation is generally light, except in vicinity of Christmas Cove, where it is quite severe, with from 35 to 50 per cent of the needles brown from the mining. Many trees in a weakened condition from past infestations show an improvement this spring.

SPRUCE MITE (Paratetranychus uniuunguis Jacobi)

New York  
and  
New Jersey

E. P. Felt (June 24): The spruce mite is locally abundant producing copious webbing on Norway spruces in Westchester County, N. Y., and Montclair, N. J.

Pennsylvania

J. N. Knull (June 3): The red spider has been abundant on Norway and Colorado blue spruce in various parts of Franklin County.

WILLOW

EUROPEAN WILLOW BEETLE (Plagiodesma versicolora Laich.)

New England

E. P. Felt (June 24): The willow leaf beetle is extremely abundant, defoliating groups of willows here and there in southern New England.

Connecticut

W. E. Britton (June 23): Severe injury to smooth-leaf willow in some of the parks in the vicinities of New Haven and West Haven.

New York

E. P. Felt (June 24): The willow leaf beetle is extremely abundant, defoliating groups of willows in southeastern New York.

INSECTS AFFECTING GREENHOUSE  
AND ORNAMENTAL PLANTS

MEXICAN MEALYBUG (*Phenacoccus gossypii* Towns. & Ckll.)

Illinois

W. P. Flint (June 15): A survey of the greenhouses in Illinois has shown that this mealybug is widely distributed over the State outside of the northeast section. While this species has been found in several greenhouses in Cook County it is not generally distributed there. It is a serious pest of chrysanthemums, geranium, and pot and bedding plants.

GREENHOUSE CENTIPEDE (*Scutigerella immaculata* Newp.)

Illinois

W. P. Flint (June 15): This pest completely destroyed sweet peas and chrysanthemum cuttings in raised benches at Des Plaines.

A THrips (*Heliothrips femoralis* Reut.)

Illinois

W. P. Flint (June 15): In a recent survey of greenhouses in southern Illinois this thrips was found to be a serious pest of stevia, chrysanthemum, calla, snapdragon, and smilax. Greenhouse men have not been troubled with this thrips until recently.

A WEEVIL (*Pseudocneorrhinus setosus* Roelofs)

Connecticut

W. E. Britton (June 8): This Japanese weevil was first collected in New Haven in 1920. More specimens were taken in 1921 and 1922. Species was identified by G. A. K. Marshall of the British Museum in 1923 (Conn. Bull. 256, p. 313, 1924). We found it feeding upon burr marigold, *Bidens* sp.. A hedge of California privet perhaps 50 feet in length and a row of Japanese barberry at one residence were stripped in 1931. Considerable injury has been done this season at West Haven.

ARBORVITAE

ARBORVITAE LEAF MINER (*Argyresthia thuiella* Pack.)

Maine

H. B. Peirson (June 10): The arborvitae leaf miner is very abundant throughout the greater part of the State.

New York

E. P. Felt (June 24): The arborvitae leaf miner is reported as abundant in the Adirondacks about Saranac Lake.

GLADIOLI

GLADIOLUS THrips (Taeniothrips gladioli M. & S.)

Michigan

E. I. McDaniel (May): Specimens of this insect were collected April 15 at East Lansing.

California

Monthly News Letter, Los Angeles Co. Agri. Comm. (May 28): A careful inspection of commercial gladiolus since the finding of infestations in four plantings in the County, located at three different localities: La Habra Heights, Manhattan Beach, and San Gabriel. It appears from the survey that the infestation in Los Angeles County is comparatively limited.

IRIS

A CURCULIONID (Mononychus vulpeculus Fab.)

New York

C. R. Crosby (June 9): Beetles of this insect were received from Canastota where they were attacking iris buds. Many specimens have also been received from Salem Center.

IRIS BORER (Macronoctua onusta Grote)

Ohio

E. W. McDenhall (May 31): The iris borer has put in its appearance again in Franklin County and in some plantings it is quite bad.

PHLOX

PHLOX BUG (Lopidea media Say)

Maryland

J. A. Hyslop (June 28): Large numbers (10 to 15 to the plant) are on perennial phlox plants in my garden at Avanel and appear to be associated with a mosaic-like disease.

PRIVET

A MITE (Tenuipalpus bioculatus McG.)

Connecticut

E. P. Felt (June 24): The privet mite is generally prevalent in Greenwich and presumably in that region causing appreciable injury to some hedges.

ROSE

ROSE LEAF BEETLE (Notodonota puncticollis Say)

Maryland

E. N. Cory (June 23): The rose leaf beetle is reported from over the State.

Connecticut M. P. Zappe (June 20): Very abundant feeding on a large variety of plants in New Haven County. They appear to be more abundant than usual.

ROSE CURCULIO (Rhynchites bicolor Fab.)

Nebraska M. H. Swenk (June 20): During the first week in June the rose curculio was troublesome on roses in Cuming County.

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Mississippi C. Lyle (June 23): Rose twigs showing rather severe injury which had probably been caused by O. bimaculata were received from Biloxi on June 7.

ROSE SWFLY (Caliroa aethiops Fab.)

Ohio E. W. Mendenhall (June 18): The rose bushes on lawns in Fairfield County are in a good many cases very badly injured.

Nebraska M. H. Swenk (June 20): The rose slug was very troublesome on roses in eastern Nebraska during the first week in June.

Tennessee G. M. Bentley (June 22): The rose slug is moderately abundant throughout eastern Tennessee.

BRISTLY ROSE SLUG (Cladius isomerus Nort.)

District of Columbia W. Middleton (June 1): Reports coming to me indicate that the bristly rose slug is quite abundant around Washington. It also seems to be accompanied by an abundance of rose aphids.

Virginia C. R. Willey (June 25): Practically all the roses in the city of Richmond are being defoliated by the bristly rose slug.

THrips (Thysanoptera)

Virginia C. R. Willey (June 1): Thrips are causing much trouble in Richmond on roses. They seem to be very numerous this spring and many rose buds have become blasted.

TAXUS

BLACK VINE WEEVIL (Brachyrhinus sulcatus Fab.)

Connecticut W. E. Britton (June 23): We receive frequent reports and material indicating that the roots have been eaten from Taxus by the grubs.

A SCALE (Pulvinaria sp.)

Connecticut E. P. Felt (June 24): A taxus scale (Pulvinaria sp., probably near floccifera) was received from Sharon, the twigs showing a somewhat severe infestation.

## INSECTS ATTACKING MAN AND

### DOMESTIC ANIMALS

#### MAN

##### MOSQUITOES (Culicinae)

Delaware L. A. Stearns (June 23): A State-wide survey indicates 12 species present in varying abundance. Apparently will be a bad mosquito year in sections of the State.

##### MIDGES (Chironomidae)

Maryland E. N. Cory (June 23): Troublesome at a vacation camp on the North East River.

Oregon D. C. Mote (May 18): A serious epidemic of midges is occurring around the lower shore of Upper Klamath Lake. Millions of the flies strike the wind shields and lodge in the radiators of autos driving along the Lake. Numerous cone-shaped swarms are observed pyramiding up from the bushes and buildings and other objects along the road. They alight on the sides of houses, on weeds, shrubbery, brush, everywhere. On the porch of one home near the lake several quarts of dead flies in windrows were observed. The porch had been swept the day before. Spider webbing on sides of houses and bushes catches the flies, making an exceedingly unsightly mass.

California R. Bogue (May 9): A great deal of sickness in Santa Paula and Ventura was caused this month from a species of midge fly getting into the water supply and wells of this vicinity. Approximately four hundred human cases have been reported so far.

##### EYE GNATS (Hippelates spp.)

Florida G. H. Bradley and T. E. McNeel (June 6): Hippelates sp. is very annoying at Gainesville, Loxburg, and Zellwood.

#### CATTLE

##### STABLE FLY (Stomoxys calcitrans L.)

Missouri L. Heseman (June 20): Populations have greatly increased during the month.

Nebraska M. H. Swonk (June 20): Stable flies began to be troublesome about June 6, and have continued so to date. This is generally true over our southern and eastern counties.

North Dakota

F. D. Butcher (June 18): G. nasalis L. and G. haemorrhoidalis L. have been ovipositing this week.

BLACK BLOWFLY (Phormia regina Meig.)

North Dakota

H. J. Brush (June 13): Sheep maggots are noticeable where sheep have scoured badly in Stutsman County.

H O U S E H O L D A N D S T O R E D - P R O D U C T S

I N S E C T S

TERMITES (Reticulitermes spp.)

United States

T. E. Snyder (May): During the month of May 233 cases of termites were reported to the Bureau of Entomology. The following list gives the number of cases reported from each section: New England, 2; Middle Atlantic, 79; South Atlantic, 53; East Central, 22; North Central, 9; West Central, 15; Lower Mississippi, 43; Pacific Coast, 10.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

South Carolina

P. D. Sanders (June 7): A. Lutken and I began mapping infestations in the following towns: Greer, one block infested; Spartanburg, generally infested; and Greenville, lightly infested.

Mississippi

P. D. Sanders (May 26): An infestation of I. humilis was found at Weatherby, 8 miles northeast of Kosciusko on the Vaiden road. It was reported to the Mississippi State Plant Board.

PEA WEEVIL (Bruchus pisorum L.)

Oregon

D. C. Mote (May 23): Pea weevils laying eggs at Corvallis. Not all out of hibernation on that date, May 8. A. O. Larson.

Texas

E. W. Laake (June 10): Stable flies are rather scarce at present. The average number of flies per animal during last week, when my observations were made, did not exceed 10.

HORN FLY (*Haematobia irritans* L.)

Missouri

L. Haseman (June 20): Their populations have greatly increased during the month.

Texas

D. C. Perman (May 31): Horn flies on cattle at Uvalde range from a few on each animal to possibly 2,500 at times; recently an average of approximately 250 to 500 per animal about normal or slightly less.

H. E. Parish (May 30): The situation in Menard County is a rather serious one at the present time. Yesterday I had the opportunity of observing about 275 head of stock in a corral at the Speck Ranch in the northwestern part of the County. I do not believe that I have ever observed any more horn flies on cattle at any time of the year. The number on each animal is hard to estimate, but I think a very conservative estimate would be between 800 and 1,000. All bulls observed were very heavily infested. I was talking to foremen last week at ranches in the southern part of Schleicher County and they were complaining about the abundance of flies. It is my opinion that horn flies are more abundant this year than they have been in several years.

E. W. Laake (June 10): The average number of horn flies per animal during the last week did not exceed 20 to 25 on dairy stock at Dallas. I was told at nearly every dairy that I visited that horn flies were extremely abundant from about the 15th to the last of May. Most of the dairymen estimated the number of flies per animal at from 200 to 300.

O. G. Babcock (June 11): The horn fly is subsiding to a slight extent at Sonora. The number of flies per animal will range from 0 to 1,000. On a few cows having horns the flies were massed at the base of the horn for a distance of about three-quarters of an inch. In two cases the flies were massed on the back side of the horn for a distance of 3 to 4 inches.

HORSES

HORSE BOTFLIES (*Gastrophilus* spp.)

North Dakota

J. A. Munro (June 18): Horse botflies have put in their appearance in McKenzie County, according to word from E. A. Hendrickson, County Extension Agent.